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ABSTRACT

This periodical contains a collection of articles and reports concerned with education and science in Germany. Two issues are comprised in this document. Articles focus on the following: (1) Germany's scientific and technical aid to developing nations; (2) an assessment of the German Comprehensive Schools (Gesamtschule), which are designed to provide students with an opportunity for knowledge regardless of their backgrounds; (3) a report on the Volkswagen Foundation, whose research includes the areas of medicine, social science, and the humanities; (4) financial sources for higher education; (5) student parliament; (6) an evaluation of the Main School program (Hauptschule); and (7) suggested programs for the underprivileged. Reports include those on the state of teaching and on federal training programs. The News in Brief column provides update information on education and science. (KC)

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Bei Abdruck Beleg erbeten

Genuine partnership—not "one-way flow"

"New quality" in scientific-technical development aid

Relations between the Federal Republic of Germany and the developing countries in the areas of education, science, research and technology have become highly complex in nature in recent years. In many cases, particularly in regard to organizational responsibility, the picture has become somewhat obscure. An overall orientation framework is missing. Nevertheless, both in practical terms and in publications, there are noteworthy points of departure for coordination and collaboration.

In this connection the new quality of these relations is becoming clear. It is no longer just a case of offering countries of the Third World training opportunities, of providing them with financial and technical assistance and opening up paths of "know-how" and technology transfer which, in the final analysis, are only one-way tickets as far as developing countries are concerned. On the contrary, the realization is now being reached that the industrialized nations and developing countries are mutually dependent on each other – in urgent need of partnership-like relations.

The attainment of equivalence of this type is the objective of scientific development assistance. In this connection, however, politicians in the Federal Republic must bear one factor in mind which is both a help and a hindrance, at one and the same time, as far as cooperation is concerned, i.e. the relatively marked autonomy of scientific establishments. Whenever it suits a research institute (or even considers it absolutely essential) to include international relations in its programme, it does do off its own bat; in such cases it often welcomes extra-mural scientific and development policy incentives. Examples of such cases (where institutes are working together with developing countries) can be found in the areas of tropical medicine, the geo-sciences or cooperative systems, for example.

On the other hand, it is very difficult to win over scientists and academicians for projects emanating from development policy if these cannot, from the very outset, be integrated into their programme. Nevertheless, the much broader problem of social requirements in relation to the actual orientation of research and technology is being tackled; it forms the focal point of scientific discussions going on in the Federal Republic at the moment.

Adapted technologies

The number of institutions in the Federal Republic involved in scientic-tecnical development aid is, despite internal scientific restrictions, not inconsiderable. As far as the state is concerned, the collaboration of the Federal Ministry of Economic Cooperation (BMZ) and the Federal Ministry of Research and Technology (BMFT) in their promotion of adapted technologies in 1976, has been developing very satisfactorily. A project list by both ministries, which was submitted to the Advisory Committee for Research and Technology (at the BMFT), includes such widely diverging schemes as the development of solar mini-power stations, decentralized energy supplies for rural areas, wind energy, desalination of seawater, the use of vegetable waste as a basis chemical substance and the obtaining of proteins from micro-organisms.

In the scientific sector, apart from the official research and exchange organizations, it is the Vereinigung Deutscher Wissenschaftler e.V., an association of scientists (known by the German abbreviation of VWD) which is concerning itself with scientific-technological aid for developing countries. It is working at the moment on a study of developing-country research in the Federal Republic. At its annual meeting in 1976 the subject of "Technologies in Developing Countries" from the point of view of these countries as well as the Federal Republic was discussed.

The "new quality" of these relations was made quite clear in the invitation: "The development of countries of the Third World cannot just be a mere process of imitating industrialized nations. Technologies are not production, communication or similar processes. They must be matched to the natural resources of the varying socio-economical and political conditions and opportunities in the individual countries. This applies to domestic as well as imported, rural as well as municipal, simple as well as complicated technologies in equal manner."

The talks and discussions at the VDW Convention have confirmed (according to a report by the information service "Wissenschaft–Wirtschaft–Technik") "that there is no standardized strategy for the mechanization of emerging countries, neither can there be in the future". The technologies which developing countries take on and adapt to their own

requirements is, first and foremost, their own affair. As far as the industrialized country providing assistance is concerned, it is a matter of making due consideration of the individuality and long-term interests of the partner-land in question.

Neither does this apply just to the area of technology; it is equally valid for the overall complex of educational and scientific aid. Taking Latin America as an example, one of the best-acquainted experts of this region, Germán Kratochwil, has outlined the situation.* He does not regard the development functions of scientific-technological progress "as being better able to manipulate certain socio-economic processes towards obscure objectives (such as increase in profits, productivity or human destruction) by means of scientific and technical achievements". It must be expected that such achievements create a more evenly distributed improvement of living conditions and lead to the overcoming of prevailing social disparities.

The provision of research processes

This means, for example, that help must be not only given to developing countries to take on technological know-how and highly qualified first-class products, i.e. the results of research, but also to build up, under their own steam, scientific productive capacities, i.e. research institutes and higher education establishments. In the teaching of this research process, Kratochwil sees a new concept of scientific-technical infra-structural aid.

In this connection he criticizes several of the measures employed in the Federal Republic's development policy. They tend, he says, to strengthen the traditional structures in the developing countries in far too many cases. Concentration on the natural, engineering and medical sciences correponds only partially with the development priorities of the partner region (in this case Latin America). He recommends expanding the initial preparatory foundation (in the way of socio-scientific research) to include such key areas as administration, rural communities, education system, country-town relations or industry.

In view of these new conditions of scientific-technological development aid Kratochwil nevertheless poses the question: "Where and how can international assistance, intent on providing development promotion, be realized in the face of existing power structures, administrative forms of research finance and the requirements of the organized masses which establish priorities in industrialized countries?"

The Deutsche Gesellschaft für Technische Zusammenarbeit (a German organization for technical cooperation and known by the abbreviation GTZ) has pointed to a further hasard – i.e. that education and science, the most important basic factor in such collaboration, is being held on too tight a rein vis-à-vis current political and economic interests: "We must exercise greater influence on those sectors of the public concerned with development policy, as well as other areas, in an effort to highlight and maintain the value of educational and scientific promotion as a whole, particularly at a time when economic and raw material considerations in collaboration with emerging countries has assumed such paramount importance."**

Kratochwil also suspects that regional focal point assistance in regard to scientific aid is displaying a tendency to be tailored to current interests. He expresses the fear that Latin America is being neglected at present by the Federal Republic in favour of the Mediterranean region and the Near East (and the poorest of the developing countries, i.e. the Fourth World). He stresses, however, that policy in regard to science and technology in the major Latin American countries has been subjected to a process of "refinement and specification".

This means, pure and simple, that scientific-technical cooperation is being left more and more to its own devices – something which is proved by practice and statistics: of the 257 university and extra-mural research institutes in the Federal Republic (according to a study undertaken by the VDW in 1972), 47 were concerned with Africa, 32 with Latin America and 28 with Asia – plus 150 developing countries in general. Here we must bear in mind the fact that Latin America is relatively smaller than Asia and that the high figure for Africa is attributable almost solely to the great interest displayed by geoscientific institutes in this continent. Following a further survey submitted by the GTZ in 1976**, of 103 of their projects (of

* Wissenschaftlich-Technologische Entwicklung und Internationale Zusammenarbeit in Lateinamerika. Published series by the Institut für Iberoamerika-Kunde Volume 24. Horst Erdmann Verlag, Tübingen und Basel.

* A large part of state technical and scientific development aid by the BMZ (see above) is handled by the GTZ (see above).

** Education and Science in developing countries. Deutsche Gesellschaft für Technische Zusammenarbeit (see above), Stuttgarter Str. 10, D-6236 Eschborn 1.

an educational or scientific nature), 35 are devoted to Latin America, 32 to Africa, 28 to Asia and 7 supra-regional.

When split down into subject areas, it becomes glaringly apparent that the greater percentage (by far) of research institutes concerned with developing countries belong to the sector of the humanities and social sciences. This, however, tells us, in reality, very little about the actual distribution of development aid in this respect since the arts and social science institutions are normally rather small. For the area of major technological research which takes up the lion's share of financial aid, the BMFT (see above) has set up international offices in several of the large-scale research centres in the Federal Republic. They devote their activities to the individual agreements within the terms of bilateral scientific-technical cooperation treaties. The assistance given to higher education partnerships, provided they are of a development aid nature, is primarily the responsibility of the BMZ and its subordinated organization, the GTZ. Of the 103 educational and scientific aid projects (every third is a partnership project), 72 are accounted for by the higher education area; the other two-thirds are devoted to the development of higher education schemes and their relative departments, equipment, assistance in the teaching sphere etc.

Broader scientific basis

In the proposed improvement in cooperation between the Federal Republic and the countries of the Third World in the areas of education and science, particular emphasis is to be placed on ortientation-applied research which is to cater for the requirements of developing countries.

In order to create a scientific basis (and in an effort to arouse greater public support) for this subject, German higher education establishments – according to a resumée by the VDW Convention – should offer far more information on the state of affairs in emerging countries; the knowledge and experience of German scientists and engineers returning from such countries must be made better use of for further cooperation with Third World countries.

Comprehensive schools in the Federal Republic of Germany IV–62

Findings of a survey of 12 schools

Both the champions and opponents of the Gesamtschule, i.e. comprehensive schools, are constantly demanding that school experiments should be subjected to "scientific observation". In the case of the adversaries of the Gesamtschule, it may well be that they are hoping that such careful scrutiny will reveal that the three-pillar education system will prove to be better. Gesamtschulen in the Federal Republic are all experimental at present and have still not become the standard type of school (Regelschule), as desired by the supporters. Nevertheless there are now 152 "integrierte" (integrated) and 120 "kooperative" (cooperative) Gesamtschulen.

By the nature of things the scientific observation and study of pupils from their first day at school to the completion of Sekundarstufe I or even Sekundarstufe II (Secondary levels 1 and 2) takes years before they can be evaluated and then published.

Of particular interest in this connection is a long-term research project entitled "Leistungsmessung an Gesamtschulen" (achievement assessment at comprehensive schools) in Hesse which has been reported on in great detail by the information service of the Bonn Ministry of Education and Science (which is helping to finance this scheme). It is worthy of note that unlike other projects, it is not concerned with a particular school but with a group of Gesamtschulen – labelled "Gesamtschulflächenversuch" (large-scale experiment) and carried out in the district of Wetzlar. At 12 Gesamtschulen, tests were conducted at the end of each year group – in the subject English. The object was to measure the level of success achieved at the end Secondary Level 1 (class/grade 10).

Before the test at the end of the Förderstufe, i.e. promotion level, (class/grade 6) the teaching staff were asked for their assessment of the probable future school career of individual pupils. This assessment was to compared later with the actual successes realized. At the same time a survey of the educationally-relevant social status of the pupils, i.e. the educational qualifications and profession of father and mother was made, in order to clarify the influence of such factors on the school career of the pupils. Six social status groups were taken as a basis – providing a finer scale than the usual upper, middle and lower classes.

Comparison of the social structure in classes 6 to 10

The assumed reciprocal effects between social background and scholastic success (confirmed by numerous surveys made of the three-pillar system) has little or no validity as far as Gesamtschulen are concerned; social class membership on the part of pupils who leave school before the end of Secondary Level 1, corresponds exactly to the social pattern at the end of class 6 and likewise of that at the end of class 10. In other words, these school leavers are not, as could well be assumed, all from the two lower social groups.

A further generally held view, i.e. that the upper, intermediate and low level courses merely reflect the social areas of the pupils – a favorite argument against Gesamtschulen – no longer holds water here. Pupils from the upper social strata move "down" to a lower set in the same way as pupils from the lower social strata move "up".

The survey states with a certain amount of satisfaction: "This large-scale experiment in Wetzlar is well along the way towards the realization of a basic objective of the Gesamtschule, i.e. allowing pupils, independent of their social background, to pass through school up to the end of Secondary Level 1". To what extent this large-scale experiment is different from other schools (in the light of these findings) must still be checked by comparative surveys in school districts with a comparable population.

Social class, school test findings

A further suprizing result was produced by the test made at the end of class 10. As far as social background is concerned, the attainment level of the pupils was more or less about average. Only the children with academic backgrounds distinguished themselves by much better results. There was, on the other hand, a marked difference in attainment levels between individual schools. This came totally unexpected. Here the test results lay, in part, way above or way below the overall average. In those cases where the influence of social background and school were added together, extreme constellations were established; in schools with the lowest attainment level, pupils with a higher social status were at a distinct advantage; at schools with the highest attainment levels, on the other hand, pupils with a low social status, for the most part, enjoyed the greatest disadvantage.

Deciding factor: course membership

In this survey the courses were divided up into the categories I, II and III according to the degree of difficulty. At the end of class 10, in course I, 38.2% were still present, in course II 44.5%, in course III 17.3%. A comparison with class 8 reveals that the percentage of pupils in the "easiest" course (III) was still 32.7% at that time. Thus, almost 50% of them left school before completing Secondary Level 1. Here the course to which they belonged was of much greater importance for the individual pupils than their social background. Since final assessment in schools is hinged more to course membership than an attainment norm overlapping school and course, pupils in course III at schools with a high standard are at a great disadvantage. The survey stresses, in this connection, that this average attainment level in individual schools is not conditioned by the social-economic structure of the pupil population and cannot, therefore, be used as an explanation.

Scholastic success

At the outset, the strength of the Gesamtschule year group was 2,522 pupils; at the end of class 10 there were only 1,624, i.e. 64.4%. The "losses" were as follows: pupils who transferred from class 8 or 9 to trade schools (Berufsfachschulen), 12.7% in total, and pupils who, on completing their nine-year compulsory schooling, simply left school (22.9%) to take up an apprenticeship. This corresponds roughly to the main school leaving certificate (Hauptschulabschluß) in the three-pillar school system. In light of this comparison – just under 50% of pupils attend main schools – the number of those within the comprehensive school system who move on to higher qualifications is considerably greater.

If the "losses" are scrutinized more closely, it emerges that there are striking discrepancies between the individual Gesamtschulen surveyed. At all schools there is an emphasized "selection mechanism" towards the end of Secondary Level I. A large number of pupils formerly regarded as "good" dropped to lower sets, i.e. lower courses. The report notes: "The feature causing the greatest concern is the marginal number of those moving upward compared with the large number of those moving downward. The question immediately arises as to whether the promotion measures, in the broadest sense, provided they can be implemented at all, cannot be applied to greater effect".

Conclusions

Those responsible for the survey feel they are in a position to claim that Gesamtschulen as such give all pupils the opportunity, regardless of social background, of enjoying a successful learning process. Nevertheless, the survey has to acknowledge the fact that assessment procedure is not the same in all

schools. Here, it involves (as far as the experiment is concerned) similar cooperative schools in close proximity to each other. The question arises as to what extent assessment differences diverge one from another and, of course, how great the level of injustice is in the case of non-cooperative schools.

The survey concludes with the recommendation that a "joint and binding procedure" be established, which starts at the planning stage, extends to leaving attainment control via the organization of lessons. Instead of the single-track process of coaching pupils for the move to the "gymnasiale Oberstufe", a broadly spanned and motivating careers programme should be offered. Compensating opportunities for failures (in the traditional attainment requirements) must be forthcoming. Here final certificates and transfer possibilities need to be revised. A new "large-scale experiment" in the Wetzlar district, likewise sponsored by the Bonn Ministry of Education and Science with the title of "Beratung in der Schule", i.e. advice in schools, is to make a contribution to the solution of these problems.

All in all, the general impression is gained that many of the difficulties experienced at the Gesamtschule stem from the fact (unintended and, in part, subconsciously) that comparisons are continually made with the old, three-pillar school system – despite the fact that the comprehensive school is supposed to be "designed to overcome all these difficulties and problems."

Is general education being given short shrift?

IV–62

Berlin (West) submits a report on the Oberstufenreform

General education is being given short shrift at "reformierte Gymnasien", i.e. grammar schools with reformed senior classes. Specialization and too generous a course programme are leading to a splintering effect. These are the main objections of the opponents of the Oberstufenreform at Gymnasien in the Federal Republic. But Berlin (West) where this reform was introduced three years ago have positive experiences to offer which could well take the wind out the opponents' sails. The Berlin findings are assembled in a report entitled "Bericht zur Reform der gymnasialen Oberstufe" (a report on reform in the senior* classes at grammar/high schools). Formerly German Gymnasiasten (grammar school pupils) had to pass their written Abitur (higher school certificate) in German, the first foreign language and mathematics (plus a fourth subject, usually physics, or a second foreign language). They had to sit oral examinations in two further subjects: social studies and a natural science or an arts subject. There was also an examination in physical education.

In the reorganized gymnasiale Oberstufe (see above) an Abiturient (candidate for Abitur) has to sit a written examination in three languages only; of these two must be "Leistungsfächer", i.e. main subjects, in the two final years which have 5 to 6 periods a week and demand a high academic level. The fourth Abitur subject is examined orally. The examination subjects must be drawn from the areas Language/Literature/Art, Mathematics/Natural Science and Social Sciences (which include history and geography.) It is now quite possible that a foreign language can be taken instead of German, a natural science instead of mathematics, e.g. biology and, maybe, history from the social science group. The fourth subject can, in turn, be a pictorial arts subject, sport, religion. Does this now mean that general education (Allgemeinbildung) is in jeopardy?

Options by Berlin Abiturienten

Of the 3,300 Berlin pupils sitting Abitur in 1975, 47% chose German as an examination subject; under the old system all candidates had to take this subject. 41% chose English (formerly 90% had to take this subject as first foreign language). 35% sat the examination in mathematics which was compulsory for all candidates at one time.

These percentages do not mean, of course, that only 41% of the pupils in senior classes at Gymnasium learn English. It is a matter of those subject-studies intensively for examination purposes. In addition there are so-called "Grundkurse" (basic courses) with 2 to 3 teaching periods a week in a foreign language up to Abitur. Mathematics is obligatory for everybody (apart from those taking it as a main subject) as a Grundkurs to the end of class 12. The number of pupils opting for French as a second foreign language has, compared with Latin, increased in recent years even if only 10% of the Berlin pupils select it as a main subject for Abitur.

* Bulletin 7/526 issued on 22.6. 1976 by the president of the Berlin Legislature and published by Kulturbuch-Verlag, Berlin.

All in all, the majority, i.e. 1,130 pupils, chose English as their first or second foreign language (main subject), 1,056 biology, 888 mathematics, 738 German (which was frequently chosen as the third or even fourth examination subject), 627 social studies (in Berlin (West) this is known as "political studies") and 529 physics. All other subjects were selected at a much lower rate.

Subjects with new laurels

How successful has the declared aim of the Oberstufenreform been, to promote the natural talents and interests of the individual pupils? This can be gleaned from the new role being played by subsidiary subjects formerly overshadowed by the "main subjects".

Gemeinschaftskunde (social studies), for example, which was a "mere" oral examination subject under the old Abitur regulations, is now being taken as a main subject by 28% of the candidates and by a further 48% as a third written examination subject.

Whereas formerly physics represented a written Abitur subject for a good third of all candidates – this applied to Gymnasien with a mathematics – natural science bias – more than 50% of the pupils plump for a natural science subject as a Leistungsfach (see above) nowadays (17% for physics, 11% for chemistry, 32% for biology). If they study one of these subjects at a later date they bring with them (after 3 years of Oberstufe at 6 periods a week) preliminary knowledge in this subject (as freshmen) far beyond the level under the old system.

These with liberal arts inclinations in the traditional Gymnasium used not to have the glimmer of a chance of taking full advantage of their particular talents in Abitur. Gymnasien catering for the liberal arts were few and far between. Now, in 1975, 30% of the candidates took an examination in Bildende Kunst (pictorial art) and 10% in music, 13% chose Leibesübungen (physical education) as their fourth subject; 4% – obviously the high-fliers – took it as their Leistungskurs.

We must point out, however, that Leistungskurse in these subjects can, as a whole, only take place at large Gymnasien and in major cities – because of the relatively low number of those interested. In Berlin (West), as in other major cities, it is gradually becoming pratice to assemble pupils from several cooperative schools into one group for Leistungskurse of this nature. A comparison of average marks reveals, incidentally, that the distribution between "difficult" subjects (such as mathematics, Latin, physics) and the "easy" ones such as biology or English, is very marginal. "Side-stepping" into these latter subjects is, however, of little advantage to pupils from a statistical point of view. Word of this will undoubtedly get around among the pupils and lead to correction of course in the selection of subjects – so often referred to as "incorrectly weighted" at the outset of the reform.

Migratory movement of the working population in Europe

IV–67

The Volkswagen Foundation promotion programme is being expanded

The Volkswagen Foundation, Hanover, is now in a position to develop and expand its promotion programme. A careful finance policy has given back to this, the largest European scientific foundation, the necessary room to manoeuvre which, in recent years, because of diminished returns and long-term obligations in major projects, seemed in danger of disappearing from the scene.

The Foundation sponsors (on application) research projects in line with its own specialized programme. This underwent more radical changes in 1975 and 1976 than was the case in former years. The Foundation is committing its efforts in increasing measure to the sponsoring of medical projects (i.e. 18% of the approved sum of DM 62 million in 1975) and the humanities in the broadest sense (11%). In addition the annual report for 1975/76 (recently submitted) announces that it is about to devote its interest to certain important problem areas of the social sciences.

The new focal areas (out of a total of 23) which were new items in the 1975 and 1976 programmes indicate the trend quite clearly; they are micro-surgery, whole-body computer tomography, gerontology and cellular biology; further areas embrace projects designed to tackle problems in science and technology, historical development and social context, historical research and portrayal of history in relation to Europe plus (comparative) democratic state research, research in regard to the causes and effects of the

migratory movement of the working population in Europe (including those from non-European countries) and, last but not least, a programme of the registration, scrutiny and preservation of cultural heritage as a scientific commitment.

The proposed promotion measures for new social science projects have two aims; improvement of the infrastructure of empirical social sciences and the solution of socially relevant problems. The already existing focal area "Wanderbewegungen von Arbeitnehmern in Europa" (see title) is to be now followed by an examination of the factors governing change and crisis in the modern industrial society. Here the Foundation is thinking of questions such as "Regierbarkeit der modernen Gesellschaft durch Parlamente und Regierungen" (Governability of modern society via parliaments and governments, unemployment among youth, multi-international concerns, research into social-structural change, international effects of economic-technical development and structural problems in national economies).

Moneys have already been approved by the Foundation for a political scientific project consisting of 14 separate studies which are devoted to foreign policy decision-making processes in the Federal Republic in the areas of disarmament and détente.

Political scientists from the Bundeswehrhochschule (Armed Forces' University) in Hamburg are working on this project together with comparable research groups in the USA and the United Kingdom. Within the focal area "Forschung im Bereich der Internationalen Beziehungen" (research in the field of international relations) the VW Foundation is financing studies concerned with basic developments in modern political practice, and the evolving of future solutions to problems in the area of international relations.

The financing of special fields in the area of modern regional research may be supplemented by an economic North American programme. At the moment the VW Foundation is sponsoring modern research into the Near and Middle East regions and Eastern Europe; the promotion of East Asian and Latin American research has now come to an end – in line with the Foundation's statutes which normally impose a time-limit of 5 years on project sponsorship.

Research workers favour flexibility in the education system IV–64

Joblessness among academicians not imminent – unrealistic expectations should be removed

For the first time the current demand for university graduates in the Federal Republic is no longer much higher than supply. In many areas a certain saturation has set in. Whether, in view of this fact, one can speak of a training excess or whether, in future, grave employment difficulties must be expected in regard to academicians has been examined by Manfred Tessaring and Heinz Werner from the Institute of Labour Market and Careers' Research, Nuremberg. In a study entitled "Beschäftigungsprobleme von Hochschulabsolventen im internationalen Vergleich" (international comparison of employment problems among university graduates) they offer evidence of the fact that the presumed danger as far as the acedemic proletariat is concerned is not looming large on the horizon by a long chalk.

It has already emerged via international reviews of educational structures and academician quotas that the Federal Republic is trailing far behind. In 1970 the number of students in the age group 20–25, for instance, amounted to 19.8% in France, 39.1% in Canada and 42.6% in the USA compared with only 12.7 in the Federal Republic. Thus the Federal Republic can be bracketed with Greece (11.8%), Portugal (7.8%) and Turkey (5.2%). Among the West European industrialized nations only Switzerland (8.3%) has a similar unfavorable picture to offer.

Eight western industrialized countries were examined very carefully in a study on behalf of the Kommission für wirtschaftlichen und sozialen Wandel, Bonn-Bad Godesberg (a commission concerned with economic and social change), published by Verlag Otto Schwartz, Göttingen, in comparison with the Federal Republic of Germany: these eight countries are the USA, Sweden, Japan, the United Kingdom, France, Italy, the Netherlands and Switzerland. Here it was mainly a matter of those countries with marked educational expansion and higher academician quotas; primarily the USA, Sweden and Japan. It emerged that during the recent recession, the proportion of jobless academics did not correspond with the general level of unemployment in any of the countries

reviewed – with the exception of Italy which has special structures of its own. In 1974, in the Federal Republic, for example, only 0.7% of university graduates were jobless compared with a general unemployment level of 2.1% and a percentage of 3.8 of graduates vis-à-vis the working population as a whole. In the USA the ratio was 2.1 to 5.2% with academicians enjoying a 12.5 percentage of the work force. In Britain, battling with considerable economic problems, the number of jobless graduates was less than a third of the unemployed as a whole.

Employment problems occur mostly in the search for one's first job. In the period immediately following their final examinations, graduates experience great difficulty in competition with more experienced applicants for a vacant post. The two experts comment in this connection: "Since one's first post is frequently decisive for one's future career, graduates act in a rational manner if – as a result of greater regional mobility – they take their time in making sure that the post offered corresponds to their expectations". Tessaring and Werner both point to the fact that "the expectations of students and graduates have become unrealistic in respect of their future career" as a result of the long years of shortage of highly qualified personnel.

Nevertheless young graduates need not be worried about their future income. A comparison with other gainfully employed persons has revealed an "undeniably positive link between income and educational qualifications" exists. The authors of the study explain this with the collective agreement regulations which link income with educational level and the establishment of training requirements by professional organizations. Even arts graduates who tend to have greater difficulties in findung an initial position, are no worse off than other academic groups as far as incomes are concerned.

In other countries, particularly in Italy and the Netherlands, academically trained persons are concentrated in the public sector. Tessaring and Werner established that here there is a "marked prestige consciousness and an aversion towards employment in private enterprise".

During the 60's, particularly when the public sector was expanding rapidly as a result of developments in the education system, a large number of graduates were able to find employment in this sector. This will not be possible to such an extent in future. Women, in particular, who are to be found in large numbers in the teaching profession – up to 90% in some Länder – are particularly affected. Here readaption processes must be expected since highly qualified women are still unable to find a sufficient number of suitable posts in private enterprise. During recessional phases these are also affected disproportionally.

In answer to the question: "What can be done in future to integrate graduates into the world of gainful employment as smoothly as possible?" the two research experts point to the problem of making long-term forecasts. They recommend an expansion of information and counselling facilities and come out in favour of great permeability and flexibility in the education system. They are of the opinion that other population groups who really are at a disadvantage, such as older employeers, young people unable to obtain an apprenticeship, women and handicapped persons who are experiencing much greater difficulties on the labour market are in urgent need of help.

Reports

IV–68

Medical training in hospitals

Medical students who began their courses 5 years ago and have completed their intermediate examinations, have been working since 1. October 1976 in university clinics and general hospitals where they will stay for one year. They are the first thousand future doctors who, in accordance with the new "Approbationsordnung" (the regulations governing the training of doctors), have to undergo a "practical year" on completion of their studies. The findings of a model experiment promoted by the Bonn Ministry of Education and Science (BMBW) entitled "Entwicklung eines praktischen Jahres im Rahmen des Medizinstudiums" (development of a concept for the implementation of a practical year within the framework of medical studies") were submitted just in time.

The difficulties facing this reform are revealed by a warning issued by the German Medical Association (known as the "Hartmannbund"): this "practical year" is threatening to become an "impractical year" simply because there are not enough training places

available. Apart from the fact that, in many cases, pledges for the additionally required funds have still not been forthcoming from the Länder, there is the further problem of training quality. This is linked to the fact that in addition to the university clinics, other hospitals are taking part as "teaching hospitals" in this training scheme. Since the federal-wide standardized third part of the medical examination takes place at the end of this year, the quality of training at both types of hospital must be comparable. The medical journal "Der deutsche Arzt" has complained that the standard curriculum for this 12 month training course is still only im embryo.

Here the concept developed for the model experiment in Berlin (West) is to provide assistance. This gives teaching hospitals guide-lines and planning assistance in implementing the practical year. This project – as applies to the overall reform – is to serve two purposes. Training of future doctors is to become more realistic (practice-related) and more patient-orientated; the very strict admission restrictions to medical studies can now be relaxed somewhat by including general hospitals in the training system. Three further projects in this connection are being sponsored as model experiments by the BMBW. A survey is to be conducted in Hamburg to establish what requirements are needed in the areas of equipment and staffing if out-patient instruction has to be set up at extra-mural hospitals. The project bears the rather long title "Entwicklung einer kritischen medizin-didaktischen Überprüfung von poliklininischem Unterricht an Lehrkrankenhäusern im II. und III. klinischen Studienabschnitt nach der Approbationsordnung für Ärzte".

At Cologne University ways are being examined of making better use of training capacities with the aid of technical media in practical biology courses for medical students. This experiment is still going on but has already revealed that, with the help of the new teaching systems, personnel can be spared "to a considerable extent" and used for teaching duties, i.e. with the same number of staff more students can be trained.

In a third model experiment at the Free University of Berlin, new, shorter (three year) courses for teaching staff at institutes providing training for various medical professions are being developed. A large part of the training commitments in respect of medical-technical assistants, for instance, are to be undertaken by graduates of these new courses, thus relieving doctors and nursing instructors for other duties. This will also bring certain relief to university training capacities, implying that those wishing to become doctors but who have come to grief at the numerus clausus (restricted admission) hurdle may now have a more favorable chance.

* * *

IV–62

Baden-Württemberg: Oberstufenreform

During the coming school year Baden-Württemberg will, as the last of the Länder (federal states) in the Federal Republic, generally introduce Oberstufenreform (reform of senior classes at Gymnasien) which has only existed in the form of pilot schemes till now. This was the upshot of a lively debate in the Landtag (state legislature) in which Education Minister Hahn outlined the principles which in the view of his party the CDU, – this party forms the government with an absolute majority in Baden-Württemberg – must provide the basis of this reform. Continuity of pedagogical development must be preserved at all costs – in the case of this reform as well as any other. The school must not be allowed to take over part of university's work. Likewise teachers at Gymnasium should not regard themselves as university lecturers or researchers and consequently overtax their pupils. The Gymnasium should not only be viewed as the path to a course of study; it should also be viewed as the path to careers not requiring a course of studies. "Here help cannot be provided by a policy based on the integration of schools providing general education with those providing vocational training". On the contrary, the minister went on to say, it is much more a case of continuing and evaluating the pioneer achievements of "berufliche Gymnasien", i.e. grammar schools with a careers' training bias.

Concrete conclusions, based on these principles are:

1. Every Gymnasiast, i.e. grammar school pupil, will be given instruction in his mother tongue, i.e. German, up to Abitur.

2. The current basic subjects – German, Mathematics and Foreign Languages – must be taken as main subjects (Leistungsfächer) with a large number of periods. The possibility of course combinations is, in the minister's opinion, to be restricted to an acceptable minimum; nevertheless there will still be nine main course permutations.

3. History, Geography and Social Studies will be "retained as independent didactic units".

4. The form system (Klassenverband) is to be retained as much as possible. In the classes 12 and 13 "the subjects should not be split up into topics at will". The courses in Mathematics, Foreign Languages and Natural Sciences are to be temporally coordinated with each other in such a way that stable sets (Lerngruppen) can be organized.

5. Curricula are to be so devised as a means of boosting the future study capabilities of Abiturienten (holders of the Abitur); they should also be so devised that they "improve orientation in regard to admission to a subsequent careers' training course".

These curricula for the Oberstufe are to be available by the beginning of next year.

In-service training continues to enjoy pride of place, the minister stressed. Since 1973 more than 5,000 teachers had taken part in further education courses concerned with Oberstufenreform. The teachers' union "Erziehung und Wissenschaft", as did the Opposition in the Baden-Württemberg Landtag, attacked this concept, stating that, in this way, the state government was "preserving the traditional form of the Gymnasium under the guise of educational progress." The fact that the old range of compulsory subjects at Gymnasium have been retained came under heavy fire, particularly since one of the main objects of the Oberstufenreform, i.e. the opportunity for pupils to choose their subjects according to personal interests and abilities, is literally being blocked. The critics maintain that too little is being done for the integration of vocational and general education.

* * *

IV–61

Federal Government/Federal States' Commission:
more works' training places

At a recent session of the "Bund-Länderkommission für Bildungsplanung und Forschungsförderung" (a joint commission set up by the federal government and the federal states to deal with educational planning and research promotion) in Bonn, the main point at issue was an educational inventory for the years 1970–75 which is to provide a working basis for the continuation of the "Bildungsgesamtplan" (overall education plan) approved in 1973 as well as a "Programm zur Durchführung vordringlicher Maßnahmen zur Minderung von Beschäftigungsrisiken Jugendlicher" (a programme of priority measures designed to reduce employment risks among young persons).

This problem (common to most comparable countries) is enhanced by the immediate follow-on of the "birthrate drop" on the "birthrate growth". At the present time (and for the next few years) high birthrate groups are and will be surging into training places. Only after 1982, as a result of demographic developments, will the employment market situation ease – if not do a complete about-face.

The Bund-Länderkommission (see title) has approved five groups of measures (to 1982) designed to help young people starting work on leaving Hauptschule, i.e. main school. These measures are:

1. accelerated expansion of the Berufsgrundbildungsjahr (Foundation training year) intended to provide, as a 10th educational year, insight into a broad "Berufsfeld" (vocational field) before making a final decision on one's future career as well as "vocational qualifying courses" for young people without a main school leaving certificate (Hauptschulabschluß);
2. the increase in the availability of industrial training places; the majority of young Germans are trained in handicraft, industrial or commercial concerns;
3. the expansion of non-works' workshops where young people are given extra sponsorship who receive their apprenticeship in small or highly specialized firms;
4. the development and improvement of Berufsschulen (vocational schools) which are to supplement training as part-time schools;
5. the expansion of Berufsfachschulen (trade schools replacing apprenticeship partially or completely).

Initially this focal programme will be submitted to the federal and state heads of government for their approval. The financial repercussions will be enormous. Within the area of vocational training alone 20,000 additional teaching and instructor posts are to be created.

The chairman of the commission, Education Minister Vogel, explained how this is to be implemented. Since general approval by the ministers of finance cannot be expected, despite the economic upswing, measures are being taken to provide the necessary staffing and material requirements by reshuffling the educational budgets. In answer to the question as to which sector of the education system is to suffer as a result of this decision, Minister Vogel took his own Land (Rhineland-Palatinate) as an example, pointing out that, in view of the declining numbers at Grundschulen, i.e. primary schools, the number of teaching posts at the latter might well be reduced in favour of vocational schools. In the case of school buildings, the focal point will shift from general education to vocational training schools.

* * *

IV–64

Has academic self-administration become too expensive?

Organizational reform in higher education in recent years at universities in the Federal Republic has

brought in its wake a wealth of new decision-making bodies and processes. All these innovations mean great additional burdens in time for the various groups at universities and colleges, i.e. professors, academic and non-academic staff and students.

On the one hand representatives for the decision-taking committees for research and teaching (e.g. studies' areas and faculties) have to be elected; on the other hand these elected representatives have to devote much of their working and free-time to their self-administrative commitments. The fact that university "productivity" can be affected in this way, cannot be denied. This is being used as an argument by the opponents of the "Gruppenuniversität" (group university) where the rights and responsibilities are laid down. At most universities it seems to be a case of teething troubles which, unfortunately, may well last a few years.

Particularly at new university foundations where there are very high-flying reforms – such as Bremen University – the amount of time university members have to spend on administrative commitments is extremely high (especially in regard to development). The Bund Freiheit der Wissenschaft, an organization bent on resisting extreme politicisation of universities and battling with radicalism, has quoted Bremen as a typical example of reform at its worst. There were or are no fewer than 115 committees or bodies with more than 1,000 seats – compared with a mere total of 4.000 university members; in the three months of the summer term there were no fewer than 404 meetings, i.e. four per day. A glance at an "old" university, which can look back on decades of experience and tradition; i.e. the University of Technology (TUB) in Berlin, clearly illustrates the situation. Before doing so, however, two things must be stated: both the TUB as well as the Free University of Berlin (to an even greater extent) are leading in the field of reform; on the other hand technological universities (technische Hochschulen) are viewed, on the whole, as more efficient, "quieter" and less radical than universities with a high percentage of arts and social science discplines. This combination of "reform leader" and "technological" college makes the TUB a particularly interesting example.

A survey of the expense of self-administration and time-costs on the part of committee members was undertaken in 1975. In the view of the TUB, the findings reveal that the "politically conditioned prejudice in regard to the disproportionate costs in terms of money or time as far as academic autonomy are concerned" cannot be substantiated. After all, a figure of just over DM 4 million, which represents only 1.34% of the total university budget, is spent on self-administration. The average costs in terms of time amount to 10% for professors, 2.1% for other academic staff and 0.3% for non-academic staff vis-à-vis their normal working capacities.

As a sign of increasing routine in the initially unaccustomed work within the autonomous committees, and the growing effectiveness of meetings, the Berlin university points to the fact that all TUB committees, at a figure of 800 hours, lay 10% below the 1974 level. The TUB hastens to point out, however, that these figures cannot dismiss the complaints submitted by individual professors on the personal burden occasioned by their committee duties.

Nevertheless, one cannot speak of an excessive demand on academic staff's time – at least as far as the TUB in Berlin is concerned. The process of normalization will, of course, as in most other universities in the Federal Republic, need a certain amount of time; it is now, in the first instance, a case of all 11 Länder discussing and approving the new high educational laws or, at least, revising existing legislation in line with the Higher Education Framework Law passed by the German Bundestag.

News in brief

Higher education and regional development

At some of the new university foundations in the last two decades in the Federal Republic of Germany, the regional factor has played a major role. The University of the Ruhr in Bochum and Dortmund University, for instance, are to make important contributions to the development and restructuring process of this gigantic industrial area; Regensburg University is to excercise positive influences on educational and economic development in a rather remote rural area. These political objectives were, of course, backed up only marginally by empirical research. The Institute of Educational Planning – Location Working Group – at the University of Technology in Hanover has, admittedly, been examining the question of university and college siting since the beginning of the 60's, but mainly from the point of view of training capacities and general urban and regional planning. The actual concrete effects of a higher education establishment on the regional economy requires detailed investigation.

The institute in Hanover has now set about this very task. At the behest of the Federal Ministry of Building, Area and Town Planning, in collaboration with the Federal Institute of Areal Studies and Planning, it is now conducting selected case studies on the regional effects of higher education institutions. For this purpose the heavily built-up area of Heidelberg-Mannheim, the Saarbrücken area (an example of a stagnating industrial region with sectoral structural problems) and, finally, the structurally weak region around Kaiserslautern. There are two main questions to be answered: How do higher education establishment graduates influence the local labour market? What effect do the monies spent by higher education establishments – particularly in the enormous building investments – have on the regional economy?

A further study undertaken by the Lower Saxonian Ministry of Science and Art is to show, inter alia, to what extent supplementary measures, especially through regional economic promotion, can reinforce the regional development impulses emitted by universities and colleges.

The Institute of Regional Educational Planning is also involved in an international study. On behalf of the European Cultural Foundation – Institute of Education, Brussels/Paris, the regional effects of universities in selected places in the United Kingdom, Ireland, the Netherlands, the Federal Republic of Germany, France and Italy are to be studied.

The vice-chancellor of Bremen University resigns

As a protest against higher education developments Prof. Dr. Hans-Josef Steinberg, vice-chancellor (German title: Rektor) of Bremen University, founded as a reform university in 1970, has announced his resignation. He was elected to office in 1974 for a term of 5 years but now intends to lay down his office at the end of the 1976/77 winter term. The immediate reason for this is the Hochschulrahmengesetz (approved by the German Bundestag) and known in English as the Higher Education Framework Law, since it does not contain the desired "Experimental Clause" for the structures in Bremen which deviate from the general rules and regulations and the draft University Law by the Senate (government) of the Hanseatic city-state of Bremen which took this as a basis. Thus "the end of fundamental elements of the Bremen model are being sealed", Steinberg states in his resignation declaration.

The core of the Bremen University model is the equal right of codetermination (Mitbestimmung) on the part of all involved in the process of research and teaching, studies' reform, and a uniform structure in the teaching body. Steinberg states: "It has now become quite obvious that an experiment à la Bremen can no longer be tolerated in our society in face of the increased pressure from the ranks of opponents to the reform measures in higher education". Although this means "the foreseeable end to certain elements in the Bremen model, it does not mean the end of the reform University of Bremen".

What is needed is not a "revival of the euphoria of the late 19th century which, when confronted by the fact that the 'production of science' was a complicated and wearisome process, became short-breathed; it is a case of facing up to the real requirements of research and teaching". The regulating of the relationship between state and university is, in Steinberg's view, too one-sided in the state's favour. It is now a matter of "dispensing with open and disguised efforts to restrict the autonomy of the university."

Bremen's Senator for Science, Horst-Werner Franke (SPD), regretted Steinberg's resignation and shared the latter's view that the higher education scene in the Federal Republic has been dealt a severe blow. The continuation of reform has, nevertheless, not become impossible – even though it has become more long-winded and is taking smaller steps.

Universities cooperate with the Berlin Science Centre

The Berlin Science Centre (Wissenschaftszentrum Berlin – German abbreviation: WZB) and the two Berlin universities (Free University and the University of Technology – see elsewhere in this issue) have signed a cooperative agreement. They undertake to give academic staff from the WZB the ooportunity to lecture; in return the WZB offers its facilities to those reading for diplomas and doctorates at the two universities. Furthermore ccordination of research programmes, scientific infrastructure and nominations is planned. The universities are expecting basic impulses in the area of application-orientated social science research.

The WZB is the umbrella organization for the three international institutes: Management and Administration", "Comparative Social Research" and "Environment and Society". Two thirds out of the total of 110 academic staff hail from 14 different nations.

The WZB was founded in 1969 as a private non-profit making (limited) company by members of the German Bundestag in Bonn and members of the Berlin Abgeordnetenhaus (House of Representatives). In May 1976 75% of the privately held shares were taken over by the Federal Government in Bonn and 25% by Land Berlin; the independent training function of the WZB,

which had been the original aim, was abandoned some time before this date. This opened up the path to cooperation with the universities.

Reshuffle at the Ministry of Education in the Rhineland-Palatinate

Dr. Bernhard Vogel (CDU), education minister of Land Rhineland-Palatinate, one of the Federal Republic's well-known cultural experts, has become successor to Helmut Kohl, prime minister of this Land.

The former State Secretary at his ministry, Frau Dr. Hanna-Renate Laurien, has taken over the office of education minister. Frau Laurien, aged 48, grammar school teacher and former headmistress of a Gymnasium in Cologne, is often referred as the CDU's "Political First Lady" and is regarded as politically gifted. She will be the only woman among the eleven Länder education ministers. Only one other woman has held this post; this was the late Christine Teusch 1947–54 who headed the ministry of education in Northrhine-Westphalia.

Bavaria: training of 'Stufenlehrer' postponed

The coming into force of the new Bavarian Lehrerbildungsgesetz (Teachers' Training Law), planned for the coming year, is to be put off to 1980, mainly for financial reasons. The monies saved thereby are to be used to employ young teachers.

This means that the regulated introduction of "Stufenlehrer-Ausbildung" (training of teachers for different levels) by means of this new law will now not be realized. It was planned to train future teachers for different school levels, according to the age of pupils, and no longer for different school types. In this way, for example, in Secondary Level I (pupils aged 10 to 16) the versatile use of teachers trained for this level in Realschulen, Gesamtschulen or Gymnasien up to class 10 would have been guaranteed.

Some of the other reform measures are to be extracted from the new law and realized separately. An example of this is the introduction of the 18-month practical training period of elementary schools (Volksschulen) and the possibility of taking a doctor's degree at teachers' training colleges.

Private enterprise opposes state interference in further training

The German Industrial and Trade Association (German abbreviation: DIHT) has protested against the "efforts towards standardization on the part of the state, thus exercising greater influence on vocational further training." Otto Wolff von Amerongen, DIHT president, described the situation as ominous if further training "is caught up in the cogwheels of planning and statutory measures" as was the case previously in Gymnasien and apprentice-training. The private economy sector basically supports the integration of general and vocational further training, but its independence must be preserved. Managerial staff in the private economy can be much better trained via works' and non-work' measures than through the aquisition of state qualifications.

The Bonn Ministry of Education and Science has rejected the fears expressed by the DIHT claiming that they are without foundation.

Registration cards proposed for apprentices

In an effort to provide a clearer overall picture of training place availability, the DIHT (see above) has suggested that all school leavers are given a registration card (Meldekarte). Every young person should present this card at the vocational school or training firm of this own choice. On changing his mind the registration card must be returned. The DIHT feels this would avoid a blocking of training places (as is the case at present) since many young people sign articles with several firms without actually commencing their training at a later date.

Oberstufenreform temporarily safeguarded

A "Vorschaltgesetz" (preliminary law) passed by the Hessian Landtag (state legislature) on 21 October 1976 (and voted against by the CDU Opposition) has safeguarded the Oberstufenreform (see above) for the time being. Definite statutory legislation is to follow before the end of the school year. This complies with a demand by the Hessian Administrative Court that – as reported earlier – the reform be stopped (on the grounds that it lacked statutory basis) following complaints filed by several parents.

Similar draft laws have now been submitted in several other Länder. In Northrhine-Westphalia the Administrative Court in Cologne has given the education minister until the end of the school year to provide the Oberstufenreform with a legal foundation. This is likely to be the same in similar court cases which have still not been concluded.

Oberstufenreform – various levels of development

Just under half (i.e. 48%) of all Gymnasiasten in the Federal Republic attended Gymnasien with a "reformierte Oberstufenform" last year. This average figure does not indicate the true position, i.e. that some Länder have been very swift in introducing these reform measures whilst others have been feeling their way forward cautiously. The most advanced are Berlin (96%), Northrhine-Westphalia (85%), Hamburg (74%) and the Rhineland-Palatinate (62%). In Schleswig-Holstein the percentage was 44, Bavaria 34, Hesse 26, Lower Saxony 24, the Saarland 19, Baden-Württemberg 16 and Bremen 13.

'Philologenverband' opposed to the Gesamtschule

In the view of the German Philologenverband (the association of Gymnasium Teachers) the expansion of Gesamtschulen should not be prematurely gone ahead with since experimental findings have revealed that these schools are "still fraught with development discrepancies". The high hopes placed in Gesamtschulen have remained unfulfilled. The reformed, differentiated education system, even from the point of view of equal opportunity, is more modern than the comprehensive school systems in other countries. In this connection the Philologenverband points to the fact that the number of working class children at Gymnasien is steadily growing in contrast to Sweden, the GDR and the USSR.

Training for "Arbeitslehre"

An inter-state programme is to provide Hauptschullehrer (main school teachers) with better training for the subject known as "Arbeitslehre" – a subject providing practical insight into the working world. This subject is to be upgraded at Hauptschulen in future. By the inclusion of more realistic and practice-orientated teaching content, the Hauptschule, it is hoped, will become a more attractive proposition and counteract the learning reluctance on the part of pupils. The final phase of this model programme is to equip 20,000 teachers with the qualification to teach "Arbeitslehre".

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Music teaching at an early stage

According to the publication "Musik und Bildung" (10/75) the College of Arts in Berlin (West) is now offering courses for music teaching at an early stage within its seminar for music teachers. This is something new for the Federal Republic.

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inter-disciplinary child research

Prof. Dr. med. Kurt Nitsch, specialist in paediatrics and president of the German Children's Welfare Society, favours the setting up of a research institute of inter-disciplinary child research. He states this in an article appearing in the publication "Schulmanagement" (Nr. 5, October 1976). Child therapy, psychology and pedagogics must work in conjunction in an effort to solve a number of urgent problems. The major research subjects are named as, inter alia, an examination of concentration and efficiency on the part of children, lenght of lessons, puberty problems – about which far too little is known and which is of paramount importance for the future form of the Orientierungsstufe (orientation level, i.e. class 5 and 6), problems of the integration of handicapped children, questions of school sport and the lack of exercise on the part of pupils.

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School counselling

An overall concept for the complex question of 'Schulberatung' (see title) is to be devised by a commission of experts in Northrhine-Westphalia. The findings are expected in 6 months.

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Curriculum for computer science as a school subject

The Ministry of Education in Baden-Württemberg has published a curriculum for the teaching of computer science in schools. It concerns class 12 at Gymnasium where it can be offered as a weekly two-period basic course; the curriculum has two topics. They are A. Alogarithms and their Programming, B. Structure and Function of a Calculator. Topic A is intended for pupils who have no preliminary knowledge of programming. If such knowledge has already been gained in mathematics lessons or in an activity, as stated in the preface, Topic B should be taken as a focal subject. In addition to a detailed description of learning aims, the curriculum contains details on number of lessons (as a guide) necessary for the realization of learning aims.

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Legasthenic centre with boarding facilities

In Lotte-Wersen near Osnabrück (Lower Saxony) a legasthenics centre has been opened where legasthenic children (reading and writing problems) can be given special treatment as boarders for a limited period – after the age of 10. So far a similar institution has only existed in Berlin for "out-patient" treatment.

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Growing demand for the Alternative Educational Path

According to the Federal Office of Statistics, the number of gainfully-employed adults who want to catch up on missed school certificates (at evening intermediate schools, evening grammar schools or special courses) has more than doubled in the last 10 years. The number of participants rocketed from 14,833 in 1965/66 to 37,826 in 1975/76. The number of those attending special courses grew at a particularly marked rate, i.e. from 3,437 to 11,042.

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International congress on teachers' salaries

The teachers' union "Erziehung und Wissenschaft" has announced that an international congress on teachers' salaries is to take place in Bonn in the early part of this year. Those taking part will be teachers, parliamentarians and ministerial officials from countries of the European Community.

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"The comprehensive university today"

"Die Gesamthochschule heute" (see title) was the subject of a symposium from 20 to 24 October 1975 in Kassel. The 13 papers read at the 2nd Kassel Higher Education Week are now available in printed form (published by Verlag Kassel–Basel–Tours–London, 1976). They range from basic and political deliberations on the difficulties in regard to Gesamthochschulen (either as an amalgamation of existing universities, specialized colleges and teachers' training colleges or as new foundations, e.g. Kassel) to the integration problems in individual subjects. The speakers came from both the comprehensive university in Kassel and other parts of the Federal Republic.

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Inter Nationes

"Okonomie der Hochschule" – eine betriebswirtschaftliche Untersuchung" (operational analysis of universities and colleges) is the title of a survey which was made on behalf of the Donors' Association for German Arts and Science. Prof. Heinz Bolsenkötter, head of a project group set up at Messrs WIBERA in Dusseldorf (a firm of business consultants), has stressed that it is not enough just to apply the general principles of business efficiency to the field of higher education; on the contrary a special higher education related research process is essential. A catalogue of recommendations for higher education establishments (as a public service industry) is being drawn up following an analysis of production factors, operational functions and organizational structures. This survey is of a strictly pragmatic nature. The authors criticize the lack of a general concept for higher education establishments which would provide overall standards; the critics bemoan the fact that there is no economic theory for the higher education system as a whole, on the strength of which science can assist higher school management in making a decision. Nevertheless the recommendations could be quite useful for higher education and administration since practical experience can now be called on; the Hohenheim University in Stuttgart has been successfully reorganized over the last two years on the basis of recommendations made by the same firm of business consultants.

Four terms per academic year?

The survey's most interesting suggestions are concerned with training structures and the various forms of university finance. The evidence offered by the current capacity models drawn up with great scientific extravagance, which were to assist in the overcoming of the restriction admission problem, is described as limited. The report, on the other hand, recommends time-tabled programmes as a means of operational control. Instead of dividing up the academic year into the present two terms and two long vacations, the year could be split up into four semesters, i. e. two times two. This would mean that one half of the students would attend lectures and practical courses during the winter and summer terms, and the other half during the spring and autumn terms. In this way higher education facilities could be used to full capacity the whole year through. The prerequisite for this is, inter alia, that in those disciplines with a large number of students there should be two professorial chairs (so-called "parallel chairs"). Structural changes of this nature would demand a revision of the various forms of training – something which would be welcomed from the point of view of economy. Studies requiring the student's presence would need to be limited and great weight attached to private study and the use of technical media and correspondence study courses. If it is felt these changes go too far, there are alternative measures for more efficient use of facilities and equipment, such as a vacation courses. For this, guest lecturing staff could be offered temporary contracts.

Students ought to pay

The current "hot potato" in the Federal Republic as to whether students should pay tuition fees (as they did formerly) is answered by a firm "yes" from the point of view of managerial economics. During the "Regelstudienzeit" (normal studies' period) such fees should be low and more of a "symbolic" nature; these fees should only be raised in those cases where students prolong the length of their studies.

Suggestions for a relaxation of the present system of higher education finance emanating from the Länder (federal states) treasuries and governed by cameralistic principles have been under discussion for years. The Dusseldorf firm of business consultants adds two further proposals to the existing list:

1. State budgets should allocate universities and colleges a lump sum; true this would require a strong centralized management at higher education establishments with extensive powers vis-à-vis the study areas (Fachbereiche) and institutes – this does not conform with the traditions and image of German universities.

2. Apart from the basic funding of research and teaching in the various study areas, additional monies, in relation to the number of students, could be made available; further money could be allocated for special projects. This three-stage funding system likewise makes not inconsiderable demands on the organization and management of universities, but the authors of the survey believe this could be achieved if their recommendations are followed.

More efficient organization

The recommendations also propose, inter alia, that the management of universities should be a full-time appointment. (Up to about 10 years ago, it was the custom at universities to elect a "part-time" vice-chancellor (Rektor) from the ranks of the professors for a limited period only, assisted by a full-time civil

servant, responsible for the domestic administration). The main responsibilities of the central administration are coordination, clear formulation of aims, planning and supervision of "knowledge production" in the sub-units of the university, i.e. faculties and studies areas, concerned with teaching and research. Within the main administration, departments responsible for particular areas should be set up, i.e. for teaching, research, medicine and clinics, administrative matters, technology as well as those helping managerial efficiency, dissemination of information and data processing. A special training course tailored to university requirements entitled "Wissenschaftsadministrator", i.e. academic administrator, is also recommended. Further suggestions are concerned with the rationalization of work in the autonomous committees and the organization of teaching and research; in addition, with administration, information facilities, human labour and pertinent production factors.

Indicators for scientific performance

The study does not only devote its attention to the economic aspects of university teaching; a system of success indicators and other references are offered as possible subjects of discussion by means of which performance levels can be evaluated from both a qualitative and quantitative point of view. The authors of the report freely admit that this is a highly problematic project.

This is confirmed by a team of scientific/academic experts at Ulm University. Ina S. Spiegel-Rösing, Peter M. Fauser and Helmut Baitsch have, on behalf of the Bonn Ministry of Education and Science, applied the latest research findings on academic efficiency, i.e. "Production Level" (number of publications), "Production Effectiveness" (level of quotations in other scientific publications) in regard to institutions (universities), research groups (special research areas and Max Planck institutes) as well as individuals. ("Beiträge zur Messung von Forschungsleistung", Schriftenreihe 16, published by Gersbach & Sohn Verlag, Munich).

The survey is restricted to medical, natural and engineering scientific research between 1967 and 1971. The surprising result is that research work at German universities varies greatly. This has led to premature conclusions – universities heading the list used this a proof of their high performance level.

In this respect the fact was ignored that the productivity index, based on the number of publications, is not a true picture of state of research per se. And even this is more than questionable; the Ulm experts' readily admit that the Science Citation Index only mentions the author enjoying first place. The growing trend towards teamwork and publications, therefore, has not been held worthy of consideration.

Appraisal of applicants

Whilst the Ulm survey gives cause for speculation in regard to the evaluation of universities (as a whole) or smaller research groups in this manner, the three experts are of the opinion that reasonably reliable results can be obtained in the assessment of the research performance achieved by individuals. They tested four candidates for two professorial chairs at the university, based on the list of their scientific publications and the Science Citation Index. Here a "list of candidates" was obtained which provided a "consistent picture". Admittedly, concrete decisions regarding applications for a vacant post cannot be based on quantitative decisions of this type; they must be supplemented by additional content, personal and other evaluation criteria.

In an effort to identify the reasons for the varying level of research performance on the part of institutions, groups and individuals, a further assessment of this pilot scheme must be forthcoming – particularly from a social-scientific point of view – in the opinion of the authors.

Organization influences productivity

The problem of efficiency level is being tackled from a different angle at the University of Technology in Hanover. Within the framework of a natural scientific-technical special research area ("Water Research in Coastal Areas"), a sub-project "Research Planning" was set up which has undertaken pioneer work in this connection. The attempt was made in Hanover to establish the level of success achieved (based on a concept by the German Research Association) in respect of scientific/academic and economic efficiency.

The effect of the so-called control mechanism "Special Research Area" makes its presence felt in regard to the choice of research topics and consequently, research content, particularly in regard to the solution of complex problems. The cooperative organizational structure clearly influences the final results. But the Hanover experts express more doubt than certainty as far as their criteria are concerned: "To what extent this report can provide a point of departure for the control of research productivity remains an open question".

Greater efficiency via private enterprise?

One thing is sure: there is no tried-and-tested system of efficiency assessment – at least as far as the

Federal Republic of Germany is concerned; nevertheless it is fundamentally essentially and feasible both in basic and applied research. Nevertheless the danger still exists that evaluation and control will be paralyzed by bureaucratic measures (as stated by representatives of scientific organizations at a podium discussion arranged by the Donors' Association for Promoting Arts and Science in Germany in Hanover). The former chairman of the Science Council, Prof. Dr. Theodor Heidhues, Göttingen University, came out in favour of a cost-orientated form of control as well as for a decentralization of state decisions in the higher educational area. He (i.e. Prof. Heidhues) also foresees greater flexibility in the state higher education system and, of course, an improved measure of efficiency.

This consideration is directly in line with the current political discussions in the Federal Republic in respect of the question as to whether certain areas of the current costs of state and local service facilities could be reduced by means of privatization. The business consultants are of the opinion in this regard, that the state should encourage and promote efforts directed at the founding of private universities.

Election procedure for student parliaments

IV–64

Autonomy at universities in the Federal Republic of Germany

At the moment there are some 800,000 students in the Federal Republic; the choice of university, based, as a rule, on the "numerus clausus" (restricted admission) in respect of individual subjects robs the student of a free decision and confronts him with differing and structural situations – something which is just part of the daily round. However this situation may personally stamp the individual student's role for this or that form of higher education, the manner of his commitment and the application of his experiences – they all contribute to the overall picture of "his" university as far as the public is concerned.

At the beginning of the term, he enters the "house of learning", armed with the best wishes of his parents and former teachers who got him as far as Abitur (higher school certificate). Counselling service has told him which combination of subjects (together with the subject of his choice or his "calculated course" towards success) is the best, without having to perform mental acrobatics, once he has taken the first step and learnt to find his way about the confusing pattern of courses and seminars.

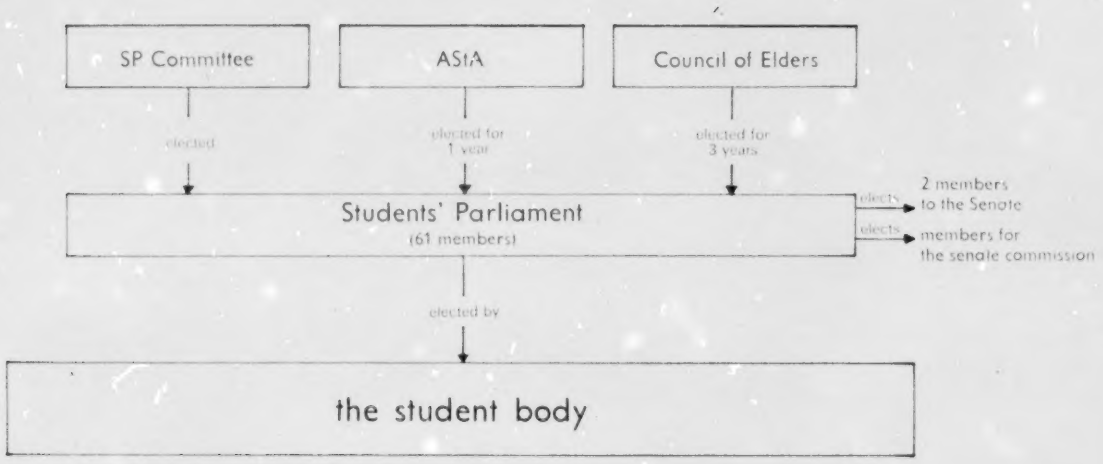
There are many opportunities for the student to participate actively in higher education; he can discuss and obtain information on the shape of things to come. All students are "automatically" a member of the supreme executive organ, the "Allgemeine Studentenschaft" (usually known by the abbreviation AStA) which is reelected each year with an absolute majority by the student parliament. Student autonomy, representing the interests of the students corresponds to the academic autonomy, the supreme organ of which is the senate. This latter which elects the vice-principal on a an annual basis comprises (according to the statutes) varying numbers of professors, assistants and students, including the head of the AStA at the university.

The central level for student political activity is the students' parliament – the supreme executive organ of the undergraduate body. Anyone elected to a committee via an election by ticket is usually a member of an active group within higher education and participates, inter alia, in the elections and control of the AStA chairman and his advisers. The responsibilities in the parliament include decisions on the student body's budget and, just as in the German Bundestag, there are special committees for finance, for the student relief fund, for the statutes and conduct of business – to name but a few – all helping the parliament to reach decisions.

The AStA chairman is elected by the students' parliament through a majority vote by its members; on assuming office he is automatically the students' representative in the senate – the supreme organ of academic self-administration. At his recommendation the various departmental heads of AStA i.e. those assuming special responsibilities, are elected by the parliament; within their area of commitment they attend to day-to-day business and are directly responsible to the chairman and the parliament.

The commitments taken on by the various AStA departments cater for students' needs in day-to-day university or college life; these commitments range from advice on rents for accommodation and care of foreign students to legal aid and pleasure outings. The extent of responsibilities is, as can be seen, broadly spanned and correspondingly split up into department:

The so-called **Hochschulreferat**, for instance, is



concerned mainly with questions of study and future profession. This area embraces examination requirements, studies' counselling, restricted admission problems and all legal matters in connection with higher school legislation etc.

The **Sozialreferat** is normally the largest and busiest of the AStA departments; the main commitment of this department is basically the improvement of the student's position from a social point of view. Here apart from giving advice to individual students in respect of material promotion opportunities, representation of political demands is also a major responsibility; they include adjustment of stipends to the general increase in the cost of living, adjustment of state promotion to the average length of studies (at the moment financial support of this type is very limited for individual disciplines), the demand for reasonably-priced meals in the mensa (students' dining-hall) and the lowering of rents in student hostels. Over and above this, the Sozialreferat issues "basic literature" to help students in various ways, including legal information etc.

Information of a general and special nature is supplied by the **Öffentlichkeitsreferat**. Here press work is undertaken in conjunction with the other departments (Referate).

One of the equally important AStA departments enjoying less limelight (and unjustly so) is the **Finanzressort**. This department elaborates the budget and provides, consequently, the working basis for the representative organs of the student body. Apart from the budget (which requires the approval of the students' parliament), this department has to audit all invoices necessary for the maintenance of student autonomy. We must not lose sight of the fact that the AStA, at a medium-sized university, has to administrate a sum which often exceeds DM 500,000 per annum (including the so-called social contributions by undergraduates).

This example – it refers to Bonn University – comprises the individual contributions (to the tune of DM 22,05) by the students. This sum is broken down as follows:

1. Student autonomy	DM 10,50
2. Student accident insurance	DM —,55
3. Student relief organization	DM 10,00
4. Student social facilities	DM —,40
5. Emergency fund to help needy students	DM —,60
	DM 22,05

Mention must also be made of the **Organisationsreferat**, responsible for the smooth-running of the diverse areas of responsibility; this includes the procurement of office materials, the distribution of leaflets, the control of the printing press and photocopying equipment.

The **Auslandsreferat** has both a political and a social function. It represents the interests and rights of foreign students vis-à-vis their homelands and the German authorities. At this point it seems appropriate to explain the situation of foreign students in greater detail; true, they enjoy, in broad terms, the same conditions as German students but, unfortunately, these foreign guests are frequently inadequately briefed. In many cases their preliminary training and/or their knowledge of the German language fall below the required standard. This is where the AStA **Auslandsreferat** (in conjunction with the Akademisches Auslandsamt and "Studienkolleg" for foreign students – two subordinate organs of the senate, i.e. the autonomous administrative body – steps in and provides assistance. All three bodies have one thing in common – they all help foreign students to overcome their "teething troubles" and

advice them in regard to studies, legal and social questions. Introductory courses are arranged to tackle and study in detail the problems mentioned above. In practice the problems are concerned with procurement of work, residence permits, allocation of scholarships, accommodation, lang age instruction etc.

The **Auslandsreferat** procures and coordinates student sponsorships. It helps in the elaboration of student subject tutorials in collaboration with the Akademisches Auslandsamt. In hardship cases and in collaboration with the **Sozialreferat**, interest-free loans are awarded. Help is given in finding accommodation for foreign students' clubs and in the planning and holding of festive occasions.

In collaboration with the **Kulturreferat** contacts are promoted between German students and the local populace in an effort to overcome the isolation so frequently experienced by foreigners. This Referat also provides information designed to improve the understanding for the "modus vivendi" and particular situation of foreign students.

The 'Referenten' (departmental heads) who initiate, organize and administrate all this in the various Referaten, receive – as does the AStA chairman – a fixed expense account for their honorary duties. (This sum is running currently at DM 420)

One of the most important of the students' facilities is the **Studentenwerk** (student relief organization). As a rule these are public institutions which offer students their services in the social and economic areas, in particular, via:

1. the setting up, the making available and maintenance of economic and social facilities;
2. the insuring of students against accidents provided this is not covered by other statutory legislation;
3. the sponsoring of students' cultural pursuits by providing suitable accommodation;
4. student assistance measures particularly the technicalities of financial assistance as laid down in the Bundesausbildungsförderungsgesetz (known usually by its abbreviation BAföG). This law stipulates the guide-lines for the awarding of state subsidies for students of limited means.

This facility which, contrary to the AStA's activities, is devoid of any political overtones at most higher education establishments, is the Verwaltungsrat, i.e. Administrative Council, and managed by an executive director. The Verwaltungsrat issues basic principles for the activity of the Studentenwerk and directives in regard to its business conduct. The Council consists of four students, four other university/college members (of which at least two must be professors), four employees of the Studentenwerk and two further persons who possess specialist knowledge or professional experience in the economic, legal and social areas.

The main departments of Studentenwerke are:

1. the domestic department covering student dining halls and canteens;
2. the promotion department which processes applications for BAföG financial assistance and which, in the framework of statutory regulations, awards sums of money to students;
3. the hostel department which is responsible for the running of the Studentenheime (students' hostels).

The activities and decisions on the part of all these organs (with their individual departments and sections) exercise a not inconsiderable influence on the working and living conditions at universities and colleges. The politically interested student, who is ready to commit himself, quickly learns that reluctance to participate in the various committees (bodies) creates room to manoeuvre for those elements which do not have a constructive attitude towards the Basic Law, i.e. Constitution.

Something which is unthinkable in the German Bundestag – a rapprochement between Social Democrats and Christian Democrats – is a fact at many universities and colleges, i.e. a working agreement between all the groupings with leanings towards the parties represented in Parliament (SPD, CDU/CSU and F.D.P.). This has become reality in face of the left-wing radical forces among the student population. A "central to moderate left coalition" in the student parliament in Bonn University has been formed by the RCDS (Ring Christlich Demokratischer Studenten) which has CDU/CSU leanings but which is nevertheless independent with the Liberale Aktion (sympathizing with the political ideas of the F.D.P.) and the independent Sozialliberaler Hochschulverband (with leanings towards both the F.D.P. and the Social Democrats). They all acknowledge the democratic foundation of the Federal Republic and take a pluralistic point of departure as the basis for science and policy.

The political spectrum is broadly spanned; it ranges from the extreme left via those student organizations which have moderate views or at least views conforming with those of the parliamentary parties to associations not directly concerned with politics, i.e. those with particular interests. They include: religion, sport, language, technology, culture etc.

In conclusion we should mention those associations which, after a long period of inactivity, suddenly find their membership growing in leaps and bounds. Even if the idea of an "academic elite" has lost favour with many (as was the case in the Kaiser's era) there are nevertheless many associations (Verbindungen) which offer the so-called "Gekeilte" the opportunity to acquire a "Schmiss" (a duelling scar on the face) and make a great play (as in the good old days) for "the realization of a lifelong bond between members – something which is not just a friendly relationship but means active, reciprocal help".

Dr. Gerd Renken

Hauptschule: Quo vadis?

IV–62

The Hauptschule (main school) scene has gone rather quiet lately. The former Volksschuloberstufe (senior classes at elementary school) were separated, many years ago, from the Grundschule (primary school) and turned into a "weiterführende" (best translation: "secondary") school alongside the Realschule (intermediate) and the Gymnasium (grammar/high school). Compulsory attendance at Hauptschule was raised from 8 to 9 years and new subjects included in the curriculum. They included 'Arbeitslehre' (general vocational instruction) and English. New academic learning aims were established, e.g. mathematics, physics, chemistry, social studies. The opportunity was offered to gifted pupils to complete a 10th school year (at centrally located schools) to acquire their Realschulabschluß (intermediate school certificate). Was this not enough? Was there now hope that this new type of school would prosper and develop unspectacularly but efficiently? This hope proved to be without foundation.

Of late the Hauptschule has moved more into the limelight. The demand is becoming more and more audible that the Hauptschule should enjoy the centre of the stage once more (as expressed by the Federal Minister of Education and Science, Helmut Rohde). The Hauptschule has also become the subject of an increasing number of surveys in the Federal Republic in regard to the "psyche" of this form of school, class communities, social characteristics, talent and reasons for failure. Even the practitioners have aired their views; what they have to say is hardly encouraging[1]. "The maintenance of the class as a working unit has become problematic, not to speak of the class as a social entity. The pupils have little acquaintance with the usual habits common to social and working behaviour. Their attainment aspirations are not developed, the class, as a 'collective' organization is literally devoid of a set pattern or a recognizable form which could promote a scholastic attitude and which would make mental activity possible . . . It must be possible in some way or other to make pupils realize that school is something important. Obviously many pupils have still failed to grasp this fact – or at least, not to a sufficient enough extent. Apparently they are of the opinion that school is only there to give answers to questions which are never asked and to ignore and leave unanswered those questions already put down.

Pupils' estimation of themselves also gives sad food for thought[2]. They feel they have failed. Their marks were bad at Grundschule; they were not recommended for Realschule or Gymnasium. Their only choice was the Hauptschule. Outside the school walls they feel socially isolated. They rarely strike up friendships with pupils from Realschulen and Gymnasien. They frequently describe their class as "finished". They have no idea what is to become of them. They have no views on the future. How has this critical situation come about?

Problems in the Hauptschule

1. Was the original concept of the Hauptschule too ambitious – at least as far as the majority of the pupils is concerned? Many educationalists, psychologists and political education experts are now asking themselves this question.

2. The educational publicity of the 60's produced an unsuspected success: more than half of all pupils with any signs of talent flocked to Realschulen and Gymnasien on leaving Grundschule (primary school); only 44% (federal average) went to Hauptschule – in the city states, i.e. Hamburg, Bremen and Berlin (West) it was as low as one third. The number of foreign workers' children attending Hauptschule is growing. In some of the Grundschulen in heavily built-up areas they already account for a third or even a half of the pupil population. This has created a further educational problem at Hauptschulen.

3. The so-called "Rückläufer", i.e. back flow, are another headache for the Hauptschulen. By "Rückläufer" is meant those pupils who cannot make the grade at Realschulen and Gymnasien and are sent to Hauptschulen. According to the teachers' union "Erziehung und Wissenschaft" about half the pupils at

Hauptschulen fall into this category. These so-called "failures" can easily develop into nuisances.

4. The problem of over-age also contributes to disciplinary difficulties and reluctance to learn; a large percentage of the pupils fail to make the grade and are kept down a year one or more times. They are "foreign bodies" in a class of pupils younger than themselves and, as a consequence, they represent a nuisance factor.

5. This leads to yet a further problem, i.e. "school leavers without a leaving certificate". A good fifth of those leaving Hauptschule do not possess an "Abschlußzeugnis" – the certificate stating that they have successfully completed all nine classes. This certificate is valuable in obtaining a good apprenticeship. True, this percentage has declined somewhat in recent years; nevertheless, this year, there will still be some 90,000 boys and girls leaving Hauptschule with an inferior certificate which indicates that their schooling has been unsuccessful and that their future professional prospects are anything but rosy.

Constructive solutions and suggestions for improving this situation are now suddenly pouring in from all sides. They are, in some cases, of an educational nature, and in others they have political overtones.

The conservative concept

In the case of the first-mentioned, the conservative approach to the Hauptschule can be found, broadly speaking, in those Länder (federal states) with a CDU or CSU government. Bavaria is special case[3]. In this Land the attempt has been made for some years to make the Hauptschule more attractive with a "qualifying leaving certificate" (obtainable through a special examination). About half of all Hauptschule pupils in Bavaria take and pass this examination. The others, too, who aim for the normal certificate (not requiring an examination), are more successful than the federal average. Apart from Baden-Württemberg, Bavaria, at 11.5%, has by far and away the lowest number of pupils leaving the Hauptschule without a certificate.

The new Bavarian curricula for Hauptschulen propose a greater emphasis on practical subjects. The subject Arbeitslehre (see above) which has so far been taught in Class/Grade 9 only, has been going on for three years now. The number of optional subjects is to be increased. The 26 compulsory lessons a week are to be supplemented by 4 lessons in optional subjects. This is split up into an A and a B area, the latter being designed for less able pupils. They are being offered as additional programmes. In the one the emphasis is on liberal arts/technical courses and the other on extra teaching in the basic compulsory subjects such as German, English and mathematics. By means of these extra courses, pupils can extend their timetable to 34 lessons a week.

A new concept for the Hauptschule has been developed in the Rhineland-Palatinate (CDU government). Starting next year "profilbildende Lernschwerpunkte" (profile-forming focal points of learning) are to be introduced to make the learning process easier and more interesting for the pupils. The present division of the year groups at Hauptschule into courses is to be retained in the Orientierungsstufe (school years 5 and 6) only. Since it has been discovered that many pupils at Hauptschule come to grief in English, weaker pupils will, henceforth, be excused this subject. The liberal arts area is to be expanded in the interest of cognitively weaker pupils so that they can better develop their individual artistic and sporting talents. In Classes 7 to 9 instruction in German and Arbeitslehre (see above) is to be stepped up and the number of lessons in English and social studies decreased.

All in all, the solutions offered by more conservative educationalists and political educational experts are aimed at sparing pupils at Hauptschulen too great an intellectual stress (which results in loss of motivation and indifference to school), and to offer them a greater chance to develop their liberal art, manual, careers-orientated skills and interests.

The ideas on the part of private enterprise

Industry, commerce and the trades who take on the bulk of the apprentices have been complaining for years about the poor orthographical and mathematical knowledge on the part of pupils from Hauptschulen. Apart from this perpetual moan, the economy has now put forward its own thoughts on the most desirable form of Hauptschule (as far as the economy is concerned); they have been summarized in a lecture by Dr. von Dulong[4] (given at a convention organized by the Education Ministry in Lower Saxony entitled "Problem der Hauptschule") who is a leading representative of the private economy and responsible for training questions in North Germany. His remarks reflect the opinion of many experts. Basically: "Education which is devoid of all social and professional reference is pure Utopia".

The suggestion is made that the Hauptschule must be heavily careers-orientated (culminating in Class/Grade 9) after the two years of Orientierungsstufe. This is to be followed by a Foundation Vocational Training Year. The value attached to English instruction must be reconsidered. The private economy favours English as an optional subject in Classes 7 to 9 with attainment courses for those displaying parti-

cular linguistic talent. The importance of Arbeitslehre is strongly emphasized; the limited programme of instructional courses at teachers' training colleges (Pädagogische Hochschulen) and in respect of "in-service" training for teaching staff in this subject (i.e. Arbeitslehre) comes in for sharp criticism. The teaching aims and curricula of Arbeitslehre have also come under fire because of their 'ideological overtones', as has the "curriculum euphoria" which has lead to an overweighting of cognitive learning objectives. In contrast, the affective and the psycho-motorial areas, i.e. the exploitation of physical abilities and skills have received short shrift at Hauptschulen.

Hauptschule pupils should have more works' visits and industrial/commercial practical courses since "they can achieve much more in this way than theoretical instruction could ever hope to do". There should be closer cooperation between schools and industry. Representatives from the economy should be heeded on particular questions, including Arbeitslehre, German, mathematics and should speak about the problems in professional life with classes in their final year at school.

In the opinion of the economy the best solution for pupils leaving Hauptschule and Sonderschule (special school) without a leaving certificate would be careers training courses of shorter duration ($1^1/_2$ to 2 years) requiring mainly manual skills.

Unions call for a 10th school year for all

The demands put forward by the teachers union "Erziehung und Wissenschaft" (German abbreviation: GEW) are diametrically opposed to these views; it expressed its ideas in clear terms at the latest special federal convention entitled "Hauptschule" in Frankfurt and at its "Forum Hauptschule"[5] in the December of last year in Bonn. Until such time as the GEW's declared objective, i.e. the Gesamtschule (comprehensive school) is realized (an aim shared by the Bonn Social/Liberal Coalition Government) the GEW is making a plea for general education at Hauptschulen, indeed, the union is calling for a 10th school year for all pupils at Hauptschulen and Sonderschulen. This demand is backed up by the claim that "increased general education for those already engaged in the working world can act as an additional driving force in their struggle to hold their own in future economic competition at international level". General education also includes English.

The GEW bases its demands on educational, economic and social arguments. The educational reason: for the moulding of personality, the encounter and coming to terms with culture in the shape of the social sciences, language, mathematics and the natural sciences is of inestimable value in one's 16th year of life. This is a matter of course for pupils at Realschulen and Gymnasien, but withheld from future workers and those in more lowly office jobs. In one's 16th year a change usually takes place, a consolidation in the attitude of young people to themselves and their environment. This has been observed in the case of Hauptschule pupils who voluntarily stay on for a 10th school year.

The political reason: in the next 10 years particularly large year groups will be leaving school. About a million youngsters will not be able to find a training place during this period. The introduction of a 10th school year for pupils at Hauptschulen and Sonderschulen would mean that, for a whole decade, 330,000 fewer training places would be required. In this way the requirement would be postponed till after 1986 when the numbers of school leavers will decline quite considerably because of the drop in the birthrate.

The imminent shortage of skilled workers (a warning issued by the economy) is grist to the union's mill and a further reason for the introduction of a 10th school year; after all, "over 50% of the current jobless are unskilled male and female workers" and they would be the very ones "to fill the skilled labour gap at present and in the future if they did not display such little desire to learn, to further train and retrain – all because of the manner in which they received their scholastic training".

The GEW is seeking to blunt the counter-argument of "school exhaustion in Hauptschulen" by postulating that the "school should be suited to the pupil and not vice-versa". Incidentically the so-called "scholastic exhaustion" is also prevalent in the case of 16-year-old pupils at Realschulen and Gymnasien. Pupils at Hauptschulen must be helped by "educational confirmation" and through the "boosting of the assessment of their personal value and ability to hold their own" – something which can only trigger off a joy in learning. Teaching content should pay attention, in particular to the outlook and experience of the pupils; it should be "situation-related without dispensing with its scientifically orientated nature". In the GEW's opinion the "best form of instruction, free from fear – not based on marks but on revised content e.g. projects", would be the best way to "establish and strengthen self-confidence". Informative campaigns prior to starting a career, contacts with the working world, courses which impart basic skills should supplement general schooling. At the end of the 10th school year, Hauptschule pupils should have the same entitlements as Realschule and Gymnasium pupils. The GEW union has pinned this noteworthy concept put forward by the German

Education Council (from its "Structural Plan") to its own standard: "Equality of opportunity can, in many cases, only be realized by guaranteeing special opportunities". Will this opportunity be granted to pupils at Hauptschulen in future?

Bibliography:

[1] J.-G. Klink: "Klasse H 7 E" Bad Heilbrunn, 1974
[2] Manfred Bönsch: "Die Hauptschule" article in the publication "Pädagogische Welt", Nr. 8/1976
[3] Periodical "schul report", Nr. 3/1976 (published by the Bavarian Ministry of Education)
[4] Henri von Dulong: "Die Hauptschule aus der Sicht der Wirtschaft" appearing in the periodical "Wirtschaft und Berufserziehung", Nr. 10/1976
[5] Working papers by the teachers' union "Erziehung und Wissenschaft" at the convention "Forum Hauptschule"

Further education: new opportunities for the underprivileged IV–61

"Weiterbildung, Chance für Arbeitnehmer; ein Beitrag zur Diskussion" (Further education, an opportunity for employees; a talking point). This is the title of a brief but nonetheless important brochure by the Bonn Ministry of Education and Science and for which Education Minister Helmut Rohde claims personal responsibility.

The Bonn Government is not actually responsible for further education or its funding; this is the responsibility of the Länder (federal states), apart from a few model schemes financed by the Bonn Government and those professional further and retraining promotion measures as laid down in the Arbeitsförderungsgesetz (Labour Promotion Law). Nevertheless this suggested "subject for discussion" is important since it gives a clear indication of the path along which the Social/Liberal Coalition Government in Bonn wishes to guide future developments. The corner stone of their deliberations is the social question which can be detected in all views expressed. Point of departure is the Bildungsgesamtplan (Overall Education Plan) approved by the Bonn Government and the Länder as a joint basis; this takes as its objective "the promotion of the setting up and expansion of a further training system into a main area of the education system (as a public responsibility) even if the individual must take the initiative in regard to his or her personal further training".

But it is on this very point of initiative that opinions are divided. It states in the brochure:

> "The principle of voluntary choice remains non-committal as long as the material and educational prerequisites continue to be so varied. By this is meant such factors as time, money, manner and scope of the educational programme as well as the ability and readiness on the part of each and every individual to go in for further education. In addition we must not overlook the fact that this voluntary attitude is not unlimited; in point of fact it is often external pressures, such as loss of one's job and the need to retrain which cause people to turn to further education".

85% of the gainfully-employed population are "dependent" employees, i.e. not self-employed. Among these is "a large group", however, which is very underprivileged and underrepresented in regard to further education ooportunities; these are the persons (according to educational course, employment and family situation) for whom "access to further education is literally barred." It is on behalf of this section of the population that no effort must be spared.

Numerous surveys such as the representative study undertaken (by Prof. Schulenberg of Oldenburg University) on the views held on learning by adults reveal that although the positive assessment of further education has increased between 1958 and 1973, it is still glaringly obvious that the declared negative attitude shown by many has almost doubled (percentually). Those who continue to show considerably less interest in further education than other professional groups are skilled, semi-skilled and unskilled workers, not forgetting housewives. Faced by this situation the Bonn Government (via its Ministry of Education and Science) has stated its objective to be a "socially balanced further education system".

The problems of further education are viewed from this angle; it has been stated somewhat menacingly that these will "become much worse unless the points are reset".

The problems seem to be as follows:

- the **"laying down of tramlines through initial education"** (in school, career and higher education institution) and the resultant "relatively in-

flexible distribution of opportunities" which can only be corrected via further education or training. An ever longer and overweighted (content-wise) initial education is rejected as "socially unjust" and "economically questionable"

- **the generation gap**; by this is meant the older working population who are still not enjoying the currently improved possibilities offered by the education system and who are to be helped by further education/training;

- the **inadequate availability** of further training facilities in rural (and even certain urban) districts where increased demand has resulted in local, "admission restrictions"; this, of course, aggravates the situation of the "educationally remote" areas of the population.

- the **"echo-character" of further education**, i.e. the manner in which institutions react almost exclusively to a clearly recognizable demand, is, of course, a further disadvantage for "those sections of the population not accustomed to the learning process";

- the **lack of balance in the programmes offered** (both qualitatively and quantitatively) in which criticism is levelled mainly at the fact that "the practical day-to-day and working experience" of many people taking part in further education has not been given sufficient consideration and that "abstract content and methods based on obsolete educational values" do not appeal to large groups of the working class.

How can the social imbalance in the further training system be overcome? In the opinion of the Bonn Government a reform of society in general is needed, starting in "initial education, and a humanization of the working world via increased opportunities of personal development and comanagement" for employees. Last but not least there should be improved financial and organizational prerequisites so that further education is taken advantage of on a broader front.

Incentives must be forthcoming to develop a willingness to go in for further education; this can be achieved, inter alia, via information, advice and publicity. Here we should refer to the highly successful model project "Politische Erwachsenenbildung in Landgemeinden" (Political Adult Education in Rural Districts), financed by the Bonn Ministry of Education and Science and which is being implemented in 15 rural districts in Lower Saxony. The TV media could also help in the way of publicity and suggestions. A further basic requirement for recruiting new members is a clearer, carefully planned programme of courses as well as increased exchange of experiences; and collaboration between the many bodies responsible; the Bonn Ministry of Education and Science is hoping to achieve further success in regard to its target group by establishing interests at an early date, by expanding the 'Baukastensystem' (unit credit system), by means of which standardized 'Bausteine' (course units) could be joined up into longer courses, and by new teaching and learning methods such as "exemplified learning", "teaching tailored to participants' needs" and an "open curriculum". The "Versuchsprogramm Bildungsurlaub" (an experimental programme of educational leave) called for by the Bonn Government and in which a large number bodies responsible for further education are to take part, is intended to serve these aims, particularly the target group of the underprivileded.

The inflexible division into general, political and vocational further training must be dispensed with, higher education should be more involved in the further education of employees, further education research and scientific observation of model experiments.

In connection with vocational further training attention is drawn to a **bill** for a new **Berufsbildungsgesetz** (Vocational Education Law). This came to grief at the hands of the Opposition and the Bundesrat at the end of the last legislative period; it is to be resubmitted in the newly elected Bundestag and has a greater chance of success this time. The bill plans, inter alia, the introduction of further training careers and further training directives (similar to those for vocational training) and which will receive state recognition by legal machinery. Partial (i.e. limited) qualifications are to be obtainable via further training courses regulated by the state; further training centres applying state directives, are to be subordinated to state supervision in regard to their staffing and material suitability. In the case of non-public (i.e. state) further education, a procedure is to be set up by means of which correspondence courses can be given the 'seal of quality'. The further training scene is still crowded with a whole host of differing public and private institutions and associations. The new "points setting" being striven for by the Bonn Government, may soon provide this confused picture with more distinct outlines.

Professors learn how to teach

Much scientific effort has been expended in the Federal Republic in recent years to establish higher education didactics as a subject of research. All too often these moves got bogged down in theory – higher education teachers, paradoxical though it may sound, belong to that academic group which is unable to make itself generally understood. Another type of higher education teaching (more closely related to practice) is seeking to explore the field of tension between higher education training and the professional world of graduates; a typical example of this is the recently published interim report by the commission for higher education teaching (Hochschuldidaktik) set up by the German Research Association (DFG). And finally, without aspiring to the lofty academic level of professors, a team of teaching staff at the University of the Ruhr in Bochum have been undertaking practical training courses for university lecturers since 1974. The initiators of this scheme, Prof. Dr. Günter Ewald, mathematician and former Rektor, i.e. vice-principal, of Ruhr University, and Prof. Dr. Udo L. Figge, expert in Romance languages, have now published details of their efforts in the "Deutsche Universitäts-Zeitung" Nr. 23/76.

Traditionally, German professors and university lecturing staff are assessed according to their research qualification; as far as teaching is concerned they are "pedagogical amateurs" (with a few exceptions). The two Bochum professors are "concerned by the fact that, teaching is undertaken without even learning the 'most elementary fundamentals of this 'trade'". Pedagogical training will lead not only to a greater feeling of satisfaction on the part of professors and students alike; it will also serve to enhance their academic standing. This, after all, cannot be based entirely on noteworthy research findings, but also on a successful academic image in the area of university teaching. If professors are "professionals" (and not amateurs) in both teaching and research, the latter can only benefit from this situation.

Ewald and Figge believe there are now signs, particularly among young staff, that this fact is being grasped and that even pleasure is being derived from being qualified research experts and qualified teachers at one and the same time. The fact that even "toplight academicians" are striving to enjoy a similar status in the lecture room, has provided the Bochum educationalists with some hope (at least for the time being). It cannot be denied that resentment and lack of interest are still wide-spread. The three 12-month higher education teaching courses held at the Ruhr University in Bochum so far began in each case with so-called "compact seminars" lasting several days and in which working groups for the term's work were formed. In the last, in the autumn of 1976, there were three workshops. In the making of a sound film the required techniques as well as the various group processes had to be learnt. The films concerned provided the introduction to a machine engineering studies course and an illustration of the Delphi Method in empirical social research.

The second workshop took small group methods in higher education instruction as its subject. The question was tackled, for instance, as to how to make taciturn people talk and vice-versa. In the third workshop mock lectures and practical courses were held in an attempt to study teaching events more closely at university. The findings of two discussions held by all those who had participated in this higher educational seminar are of great interest and significance; they attach more importance to personal experience in the analysis of individual behaviour and in conscious group experience or media-technical problems. And: "For many it was a surprising realization what importance is played by emotional factors in teaching and construction and how they can be used constructively. Teaching and learning are not only intellectual processes; they are also emotional"

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IV–64

European University Institute opened

It has taken 20 years to realize the idea of a European higher education institute. On 15 November 1976 the "European University Institute", situated near Florence (Italy), was officially opened. For the time being it is a small post-graduate establishment specializing in the humanities and borne (i.e. financed) by the 9 member countries of the European Community.

The original concept foresaw a European University proper. The idea emanated from Prof. Dr. Walter Hallstein, former State Secretary in the Chancellery and subsequently first President of the Commission of the European Community as far back as 1955; when concluding the European Atomic agreement (1957) it was resolved that "an institution of university status should be set up". The efforts on the part of the Euratom Authority to set up a full-scale European university on this basis, however, ran into stiff opposition from (above all) academic/scientific or-

ganizations in the Federal Republic of Germany "because every university in Europe has its own European and international character according to its history and substance". Universities in other European countries supported this view. As a result the original plans were subjected to considerable amendments with the passing of the years.

This higher education institute (which has been housed in the former Benedictine Monastery of Badia Fiesolana near Florence) accepts, as a rule, students who have already completed their final examinations and are working on a thesis; in other words there is no place for freshmen. According to the foundation statutes the institution's brief is to "make a contribution to the development of European cultural and scientific/academic heritage in both its unity and manifoldness. The activity is further concerned with the gigantic upheaval processes and institutions which are characteristic of Europe's history and development. They also make due allowance for their links with non-European cultures".

The new European higher education institute is split up into four departments: history and cultural history, political and social sciences, jurisprudence and economic sciences. For the time being a teaching staff of nine persons has been appointed for a period of 3 years; they hail from all member countries of the European Community with the exception of Luxembourg. There are 2 Germans. The Dutch historian Max Kohnstamm was elected as the first president (principal) of the institute. The first 70 students began their studies in October 1976; the medium-term plan foresees between 250 and 300 young graduates. In principle all languages of the European Community are to enjoy equal status at the institute.

In an article in the "EC Magazine", Eberhard Böning, ministerial director responsible for higher education matters at the Bonn Ministry of Education and Science, has described the foundation of the European University Institute as "an adventure and not a matter of routine". In view of the controversies over the last 20 years Böning's demand that the Institute needs "the active support of both those state offices responsible for its foundation and other European higher education establishments" is not without significance.

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IV–62

Who still wants to be a teacher?

Since the beginning of the school year 1970/71 an annual survey is made of the studies and professional aspirations of Abiturienten (holders of the Abitur, i.e. higher school certificate) at Gymnasien as the result of a resolution made by the Standing Conference of the Education Ministers. This helps to establish the future demand for studies places.

This 'Abiturientenbefragung' may well seem highly superfluous in the eyes of the Abiturienten nowadays since many are aware of the fact that they will not be able to take the discipline or study at the university of their choice because of the overcrowding in higher education. The original official aim of this survey, i.e. the obtaining of exact details of the future number of students per subject per university or college, has had to be revised as a result of the almost total reglementation of university/college entrance. Nevertheless the survey is still able to reveal studies aspirations (requirement statistics) largely uninfluenced by external pressures (e.g. numerus clausus).

It is also highly illuminating in regard to the wish to follow a studies course for a teaching post (Lehramt). The warnings issued by the education ministers in respect of certain teaching study courses were so severe that they are now reflected in the attitude of would-be freshmen.

We should mention in advance that the number of Abiturienten wishing to follow a course of study regardless of subject, has declined considerably following the warning of an "academic glut"; five years ago the figure was as high as 90% but has now sunk to 75.3%.

The drop in the number of those future students wishing to become teachers is particularly marked. It is 38% below the 1974/75 level; this means that 35,915 of those approached in the previous school year (1974/75) wanted to become teacher compared with 22,386 in 1975/76.

The preference for certain teaching subjects is both interesting and mystifying. What is not surprising is that as a result of the stern warnings issued in regard to a course of studies for Grundschulen (primary) and Hauptschulen (main schools), the proportion of Abiturienten seeking a career at such schools (including Sonderschulen, i.e. special schools) has decreased by 53% within the course of 12 months and, in the case of Realschulen (intermediate), by 43%. What is difficult to explain is the huge drop (64%) in the number of those wishing to teach at vocational schools (Berufsschulen) since this is just where there is still a great lack of trained staff (according to official utterances). The number of those aspiring to a teaching post at Gymnasium sank by a good fifth (– 19%).

The preferred teaching subjects are mathematics and physical education/sport. This is hardly surprising since requirement forecasts give these subjects the

best chance. A further large group – apparently more out of inclination than favorable forward estimates – wish to study English (Anglistik) or German (Germanistik). These are followed in order of preference by special i.e. therapeutic teaching and the natural sciences biology, chemistry and physics. In some of the Länder, as we have already stated, teaching posts are no longer tailored to definite school types but to educational levels (1st to 4th school years = Primarstufe (primary), 5th–10th school years = Sekundarstufe I (Secondary Level I) and 11th–13th school years = Sekundarstufe II). This, according the wishes of the Bonn Government and the declared intention of the Bildungsgesamtplan, i.e. Overall Education Plan, is to be the path taken in future.

How do Abiturienten react to this? Only 9.6% are interested in the Primarstufe, 18.6% in Sekundarstufe I and no less than 44.9% in Sekundarstufe II, i.e. the senior classes at Gymnasium which calls for the lengthiest period of study and which offers the greatest prestige and the best pay.

News in Brief

Humboldt Foundation: more than 1,200 apply for scholarships

The Alexander von Humboldt Foundation awarded a total of 449 research scholarships to foreign academics in 1976. The number of those applying was three times as much; 1,243 applications from 67 nations were received – 200 more than 1975. Only an additional 20 research scholarships could be awarded, however. The Foundation's selection committee reaches its decision entirely on the strength achievements on the part of applicants regardless of country or subjects.

The bulk of the applications came from India (223 = 18.1%), the USA (154 = 12.2%), Japan (144 = 11.5%), Poland (89 = 7.1%) and Egypt (67 = 5.3%). The pattern of awards made to these 5 leading countries is somewhat different, however; scholarships were awarded to 73 applicants from Japan (16.2%), 64 from the USA (14.3%), 54 from India (12%), 27 from Poland (6%), 20 from the United Kingdom (4.2%). In respect of the award pattern the Humboldt Foundation states: "Since selection is based exclusively on objective criteria, the comparison of the two patterns (i.e. applications as opposed to awards) gives an indication of the qualification level of applications from the country in question."

The increase in the number of applications is interpreted by the Foundation as an indication of the growing efficiency and attractiveness of science and learning in the Federal Republic. The research scholarships awarded by the Humboldt Foundation enable foreign academics to participate in project-tied collaboration with German colleagues and are often the beginning of lasting scientific/academic contact.

Unlimited studies only possible if self-financed

The Hessian Staatsgerichtshof (the constitutional court in Land Hesse) in Wiesbaden has ruled that "permanent students" are not entitled to exemption from teaching costs. This was triggered off by a 46-year-old Yugoslav who was in his 23rd term (semester) of philosophy studies at Frankfurt University. From the Winter Term 1973/74 the university withdrew his right to tuition free of charge. According to the Staatsgerichtshof, this imposed limit is entirely in line with the Hessian Constitution which guarantees equal opportunity in education. The Hessian State Government has stated on this point that equal opportunity in no way implies the right to an unlimited period of study free of charge.

Successful exchange between Mannheim and Sarajevo

Partner-like cooperation has existed for four years between the universities of Mannheim and Sarajevo (Yugoslavia); 300 students and 120 members of the teaching body from both universities took part in the exchange programme during this time. Collaboration is now to be stepped up. At the conclusion of a joint 4-day-long symposium (which was organized to discuss the question of economic cooperation as a factor in world peace) the representatives of the two universities drew up an agreement to this effect at the beginning of November last year.

Cooperation with Romania

The German Research Association (DFG) and the Academy of the Socialist Republic of Romania have agreed to work together in the academic/scientific field. Information and publications are to be exchanged by the two institutions. The aim is a continuous exchange of experiences in regard to the promotion of research. The agreement was signed in Bonn by the Prof. Dr. Serban Titeica, vice-president of the Romanian Academy and Prof. Dr. Heinz Maier-Leibnitz, president of the DFG, and Dr. Carl-Heinz Schiel, secretary general of the DFG.

European Community: measures to counteract joblessness among youth

The education ministers of the European Community (EC) in Brussels have approved an 8-point catalogue with recommendations on vocational training policy which the member countries should follow in future. These proposals are intended to help reduce unemployment among youth in EC countries. The recommendations include those on the development of curricula and training courses which will provide young persons with better preliminary training for their future career. Special

further education courses are to be devised for juveniles leaving school without a qualifying certificate. Training of teachers is to be more related to the professional and working world. The recommendation was also made that exchange of information and improved collaboration between schools, advice training and employment offices should be stepped up. The education ministers also resolved to adopt a joint action programme with 23 model projects and surveys which will be financed to the tune of DM 42 million by the EC and for which the member countries are to provide moneys to the same level, if not more. Inter alia, the training requirements on the part of young people and the reasons for difficulties in the search for work are to be explored. Experiments are to be undertaken to see to what extent the limited motivation amongst youth can be boosted and to what extent the chances of girls (who account for a particularly high proportion of jobless young persons) can be improved by means of extended training programmes. According to the EC Commission's statistics there are currently 1.6 million unemployed young persons between 15 and 25 in the member states of the European Community.

Philologenverband opposes "Stufenlehrer"

The German Philologenverband, the professional association of Gymnasium teachers, has voiced its oppositions to the intended (and in some Länder already realized) division of education into school levels instead of school types (Primarstufe, Sekundarstufe I und II) and objects to teacher training according to these levels. The school system will be reduced to a "chaotic experimental field" because of this reform. In the view of the association, teaching training should remain geared to the traditional structure of the school system. The continually stressed equivalence of all teaching posts refers only to the pedagogical area of responsibility. A Gymnasium teacher requires a minimum of 10 terms of study in two subjects to obtain satisfactory qualifications. The particular course of studies should be so fashioned that graduates are equipped to find employment in sectors other than in schools.

Not fit for school till 9?

Compulsory school for children in the Federal Republic begins on completion of the sixth birthday. They are regarded as "schulreif", i.e. fit for school, at this point in their life. This "dogma" has now come under fire from the German Medical Association. The internationally acknowledged paediatrician Prof. Hellbrügge (Munich) has stated, in line with latest findings, that commencement of school at too early an age is a "tragedy for pupils, parents and teachers". Even today every 12th child is prevented from starting school at six because it is considered to be too soon. The others, who commence their school life, have revealed through their physiologically completely normal "restlessness' and frequent failure in the first two years in the classroom, that they are not fit for school. In the view of the medical experts the best age for starting school is 9.

Harmful school furniture

According to investigations by the Association of Therapeutic Professions in Baden-Württemberg, only two fifths of school furniture in the Federal Republic complies with medical requirements. Faulty deportment on the part of pupils (leading to pains in the small of the back, the spine and back of the neck) is frequently attributable to inadequate school furniture.

"Terminals" at Berufsschulen

According to a statement by the Ministry of Education in the Saarland, all commercial vocational and trade schools (Berufs- and Berufsfachschulen) are to be equipped with terminals, i.e. every school is to have a data station, screen and printer which are to be hooked up to large-scale computers of the Association of Savings and Giro Banks. By means of this model experiment the possibilities of using computers in the classroom is to be tried out.

DM 1,800 million for art and preservation of monuments

In 1976 the governments of the 11 Länder of the Federal Republic made DM 1,800 million available for art, monument conservation and adult education; this was DM 80 million more than in 1975. These details are contained in Publication Nr. 53 by the Education Ministers' Conference and entitled "Die Ausgaben der Länder für Kunst und Kulturpflege 1970 bis 1976" (Expenditure by the Länder on art and monument preservation from 1970 to 1976).

Almost 40% of the cultural expenditure was accounted for by the theatres, orchestras and festivals (DM 682 million) and almost a quarter by museums, collections and monument preservation (DM 416 million). DM 322 million was spent on adult education and public libraries and DM 185 million on art academies.

Research partnership with India

The German Academic Exchange Service (DAAD) is continuing its published series of individual examples of bilateral relations with a report entitled "Deutsch-indische Wissenschaftsbeziehungen am Beispiel des DAAD" (DAAD-Feature-Dienst 4/76).

30 years ago, as far as the Germans were concerned, there was a traditionally great interest shown in the humanities in India whereas most Indian students who registered at universities in the Federal Republic in the 50's studied natural and engineering disciplines.

With massive support from the technical universities of Berlin, Brunswick, Aachen and Stuttgart, work was begun some 20 years ago with the setting up of the Indian Institute of Technology (IIT) in Madras. In this second phase of scientific collaboration the academic exchange programmes were stepped up. The exchange agreement for academics, concluded between the DAAD and the Indian Council of Scientific and Industrial Research (CSIR) in 1965, served as a model for a large number of further agreements between the DAAD and other countries.

At the beginning of third phase, in the early 70's, several government agreements were signed – in 1971 in the areas of nuclear energy and space exploration; then in 1974 followed a

framework agreement on scientific-technical cooperation which has now been filled out with individual agreements and programmes. For current collaboration it is important that both countries identify the areas in which they are working together. "Future scientific cooperation with India will consist not so much of sending German experts to India and inviting Indian scientists to attend training programmes, but in the promotion of joint research projects and German-Indian research teams" it is stated in the DAAD report. Coal research and coal technology, food conservation and solar energy are typical examples.

The DAAD has concluded an agreement with the IIT in Madras on the sponsoring of joint research projects between IIT faculties and German university institutes; work has already begun on 8 projects. In 1974 a new programme of institute partnerships was introduced into the cultural agreement; the DAAD and the Indian University Grants Commission are promoting projects which are being jointly processed by an Indian and a German university. Here are three examples: Metallurgy (Benares Hindu University and the Max Planck Institute of Metal Research, Stuttgart), German social history at the end of the 19th century (Delhi University and the Ruhr University in Bochum), neurophysiological problems in the bat's orientation system (universities of Madurai and Frankfurt).

Medical University in Hanover: clinics completed

The "Zentralklinikum" of the University of Medicine in Hanover has now been completed with 1,340 beds. The first building phase of these clinics at the new university, which has been operating (teaching and research) since 1965, was completed in 1971. Within a relatively short time the Hanover University of Medicine has earned itself great respect at international level, firstly because of its up-to-date technical facilities (e.g. nuclear medicine) and secondly because of the many international scientific congresses which have been held in Hanover.

Hochschul-Informations-System on a new basis

The Hochschul-Informations-System (HIS) GmbH is now being financed one third by the Bonn Government and two thirds by the Länder as partners. HIS was established by the Volkswagen Foundation in 1969 and financed by same until 1975. The work of the HIS is principally concerned with a more efficient usage of higher education institutions via capacity surveys, rationalization and further training of higher education managers.

Giessen University: cooperation with Romanian universities

Within the area of agricultural research the University of Giessen is, in future, to work hand in hand with the Romanian agricultural universities Nicolae Balcescu in Bucharest and Ion Ionescu de la Brad in Iasi. A partnership agreement proposes, inter alia, an exchange of scientists and joint research projects in several sectors of agricultural science and veterinary medicine.